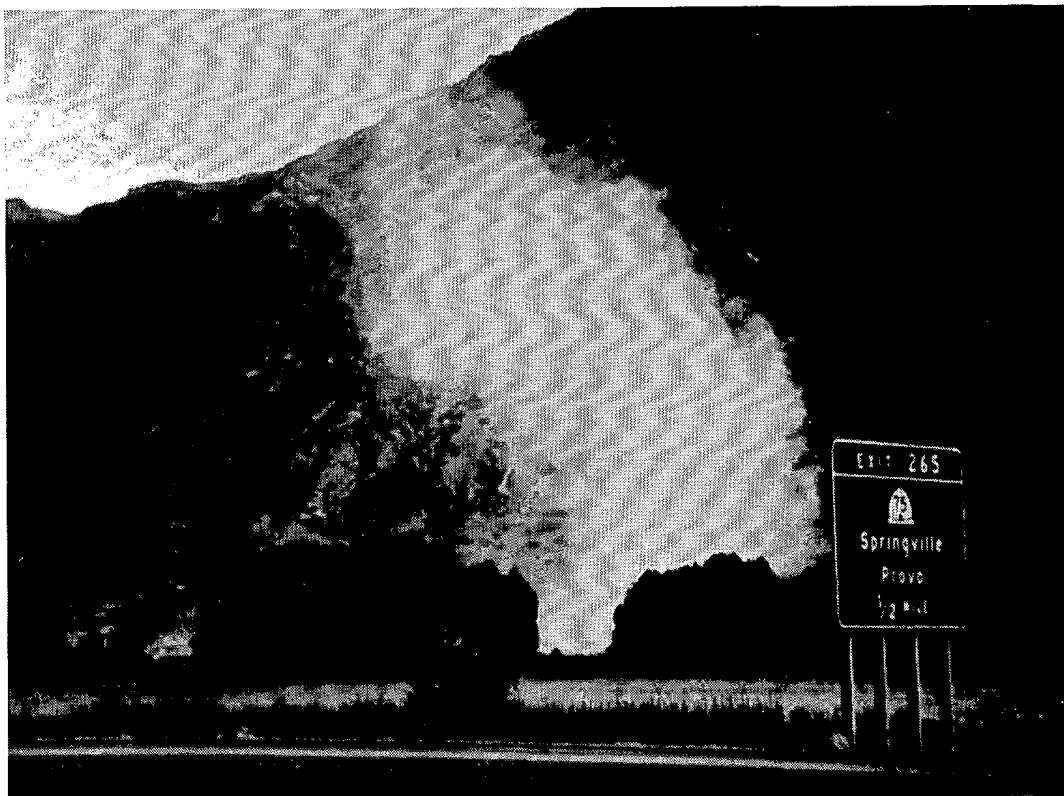


JULY 1985

VOLUME 27

NUMBER 7

# STORM DATA



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*Kenneth D. Haden*

DIRECTOR  
NATIONAL CLIMATIC DATA CENTER

**noaa**

NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION

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NATIONAL CLIMATIC DATA CENTER  
ASHEVILLE, N.C.

## C O N T E N T S

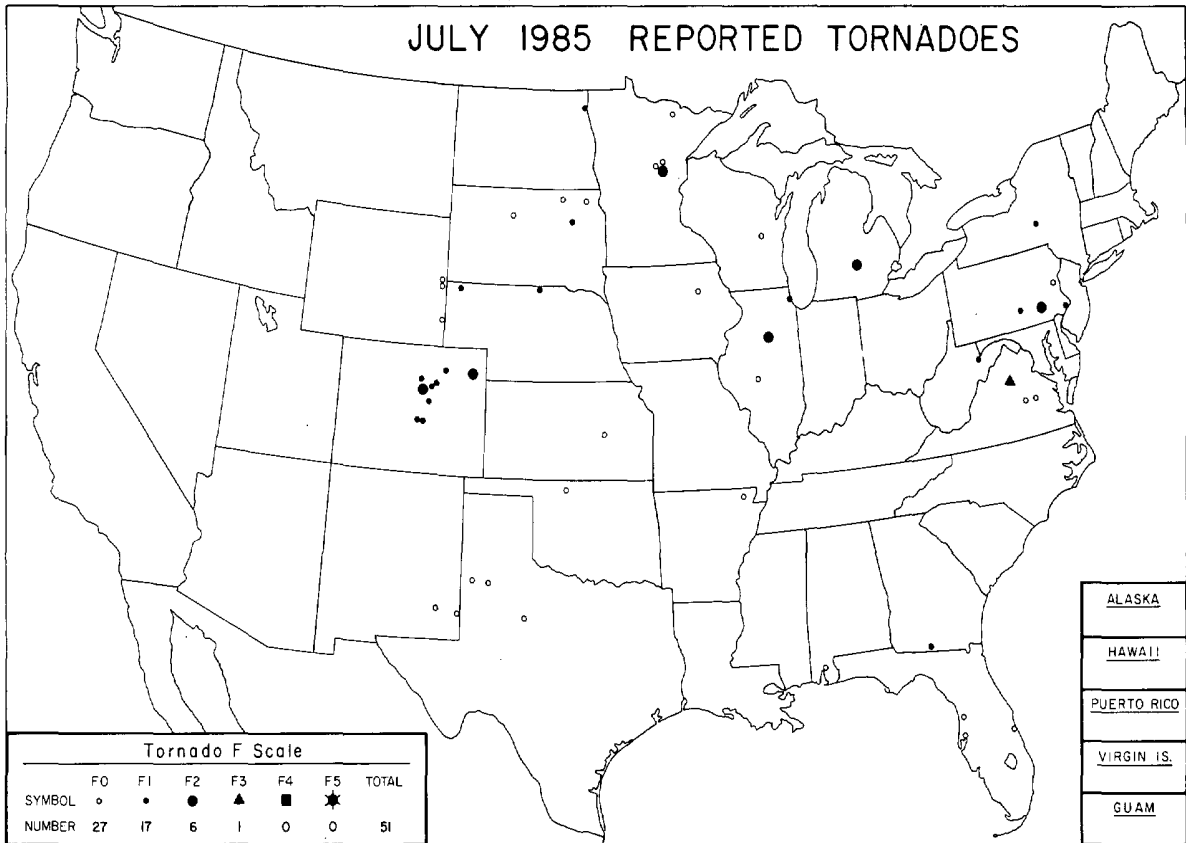
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Cover: A giant spiral of dust that was blown up from the ground by microburst winds from a severe thunderstorm at Provo, Utah on July 6th (see SEVERE THUNDERSTORMS and MICROBURST in UTAH, page 5). ---Photo by Duane J. Stiegler, University of Chicago.

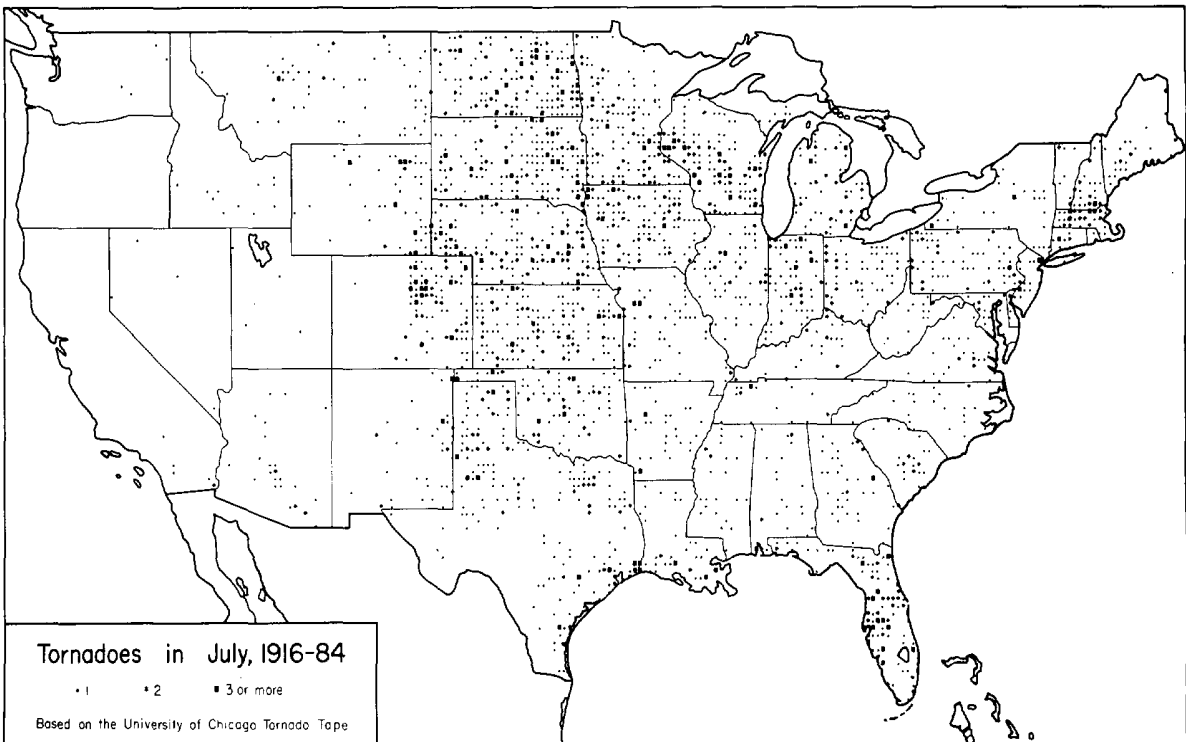
NOTE: The section on Outstanding Storms of the Month is prepared by Professor T. Theodore Fujita, editor, and Duane J. Stiegler, associate editor, University of Chicago. The narrative descriptions of Storms by State and Summaries of Hurricanes and Tropical Storms are prepared by the National Weather Service. The National Climatic Data Center compiles the statistics on deaths, injuries, and damage. This publication contains our best information on Storms, but, due to the difficulties inherent in collection of this type of data, it is not all-inclusive. Late reports and corrections will be carried quarterly.

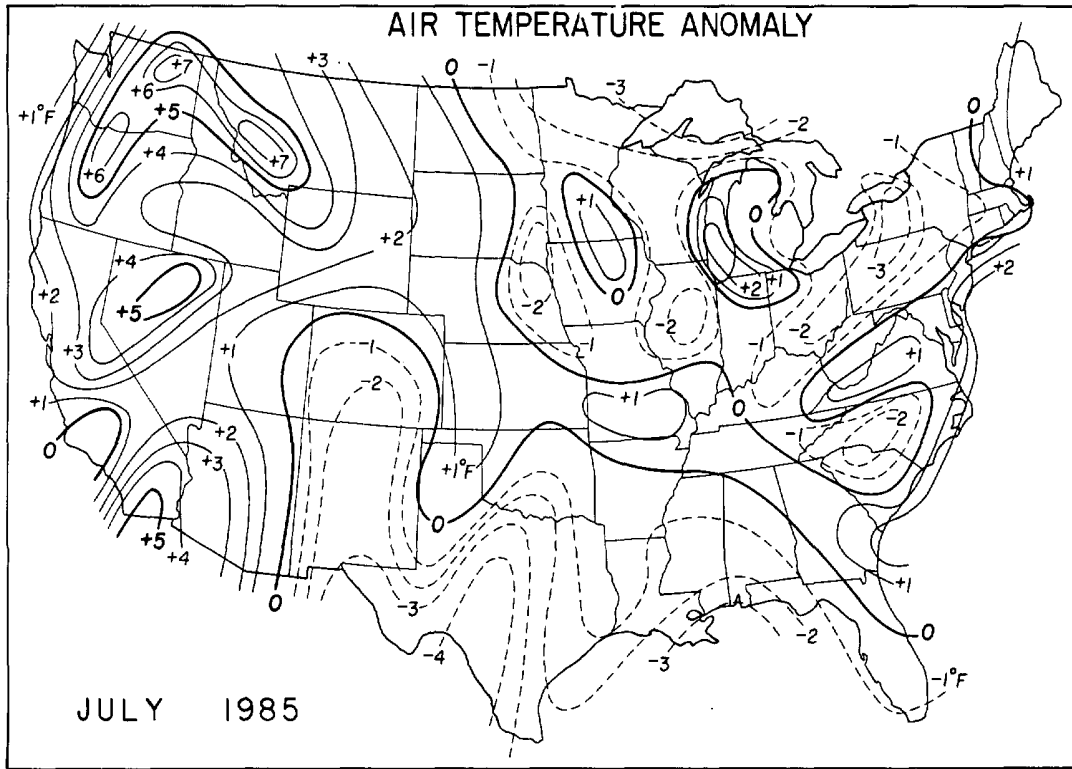
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# OUTSTANDING STORMS OF THE MONTH



● COMPLETE REPORT RECEIVED	● 1AL	● 7DE	● 14KS	● 21MN	● 28NJ	● 33OH	● 39SD	● 44VA	● 49AK(SE)
⊙ PRELIMINARY REPORT RECEIVED	● 2AZ	● 8FL	● 15KY	● 22MS	● 29NM	● 34OK	● 40TN	● 45WA	● 50HI
○ REPORT NOT RECEIVED	● 3AR	● 9GA	● 16LA	● 23MO	● 30NY(O)	● 35OR	● 41TX(N)	● 46WV	● 51PR
(N) northern (W) western	● 4CA(N)	● 10ID	● 17ME	● 24MT	● 30NY(C)	● 36PA(E)	● 41TX(S)	● 47WI	● 52VI
(S) southern (C) central	● 4CA(S)	● 11IL	● 18MD	● 25NE	● 30NY(W)	● 36PA(N)	● 41TX(W)	● 48WY	● 53PC
(E) eastern (O) coastal	● 5CO	● 12IN	● 19MA	● 26NV	● 31NC	● 37RI	● 42UT	○ 49AK(N)	
(SE) southeastern	● 6CT	● 13IA	● 20MI	● 27NH	● 32ND	● 38SC	● 43VT	○ 49AK(S)	

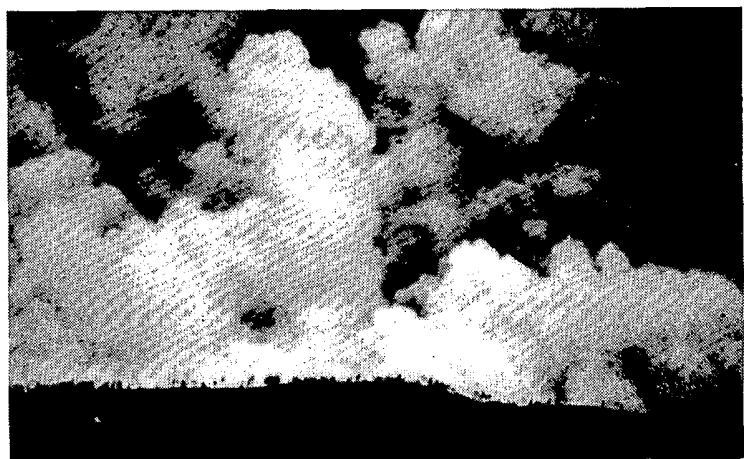
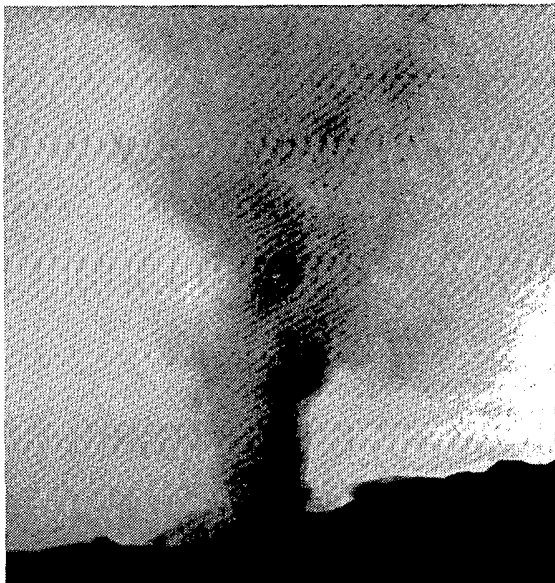
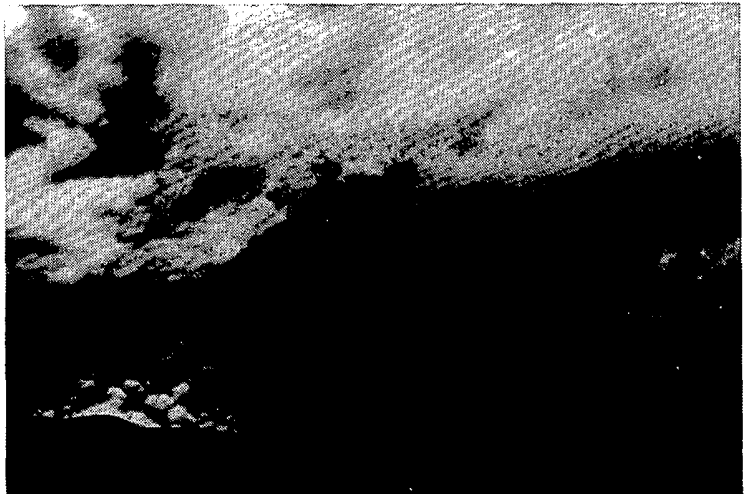




---Data base from NOAA/USDA Joint Agricultural Weather Facility.

1. FOREST and RANGE FIRES from Late June through July, 1985

Dry conditions and lightning combined to produce numerous forest and grassland fires throughout the western halves of the U.S. and Canada during late June and most of July. Pictured here is a fire started by lightning on June 30th that burned well into July near Fairmont Hot Springs, British Columbia, Canada. ---Photos by Duane J. Stiegler, University of Chicago.

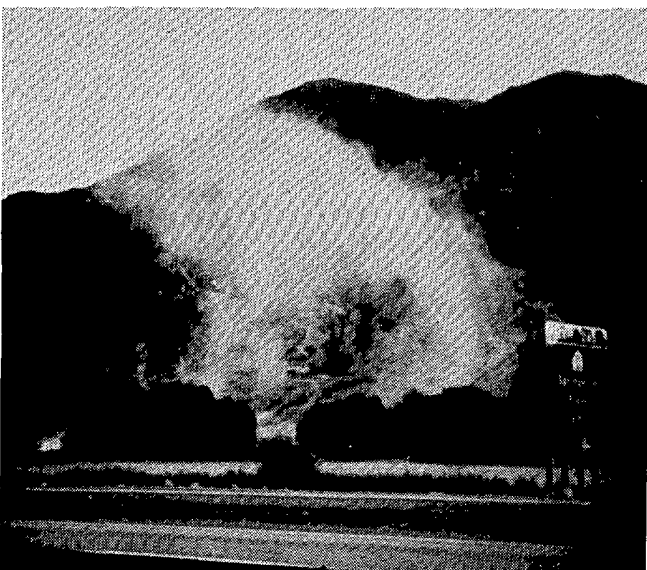
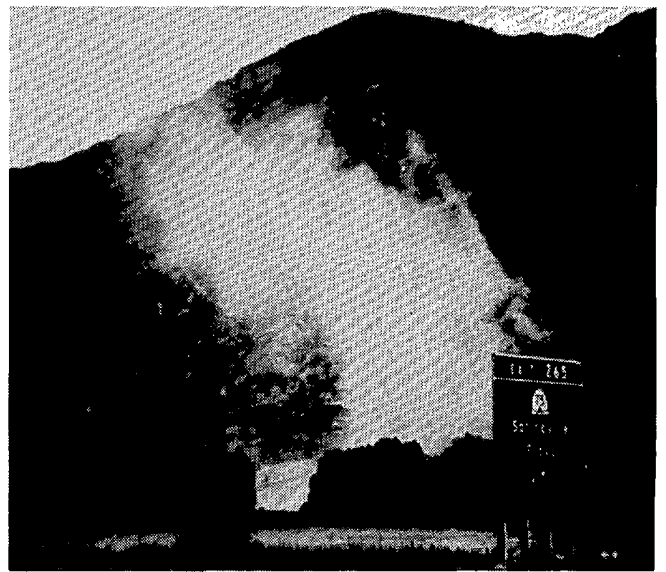
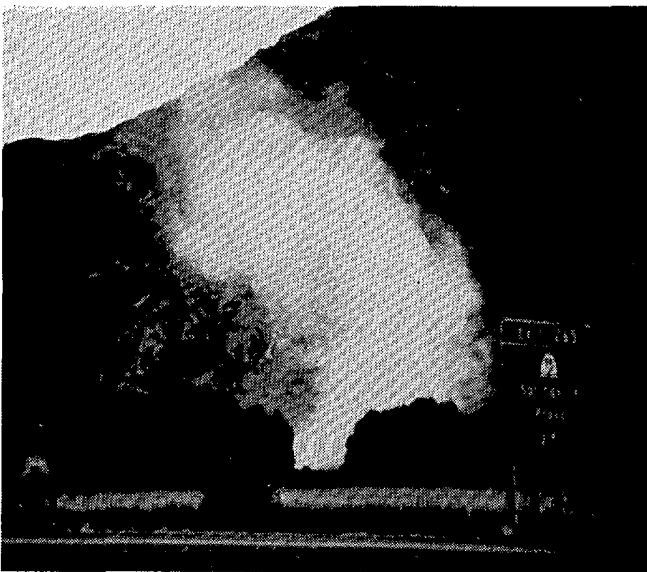
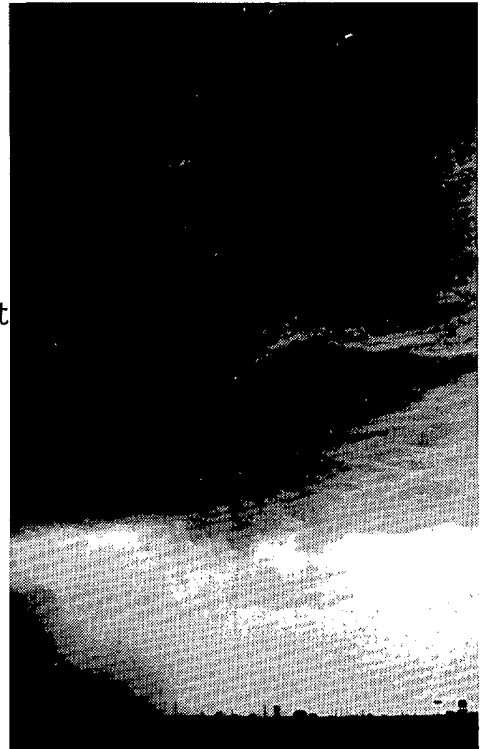
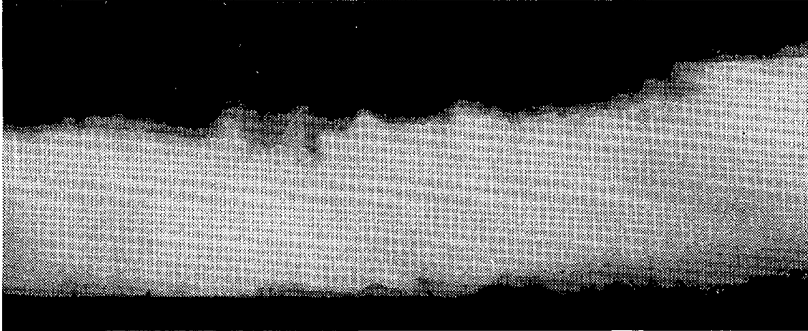


Southwest view of the fire from beneath the thunderstorm.

Wide-angle and zoom views, looking northwest with the thunderstorm in the background.

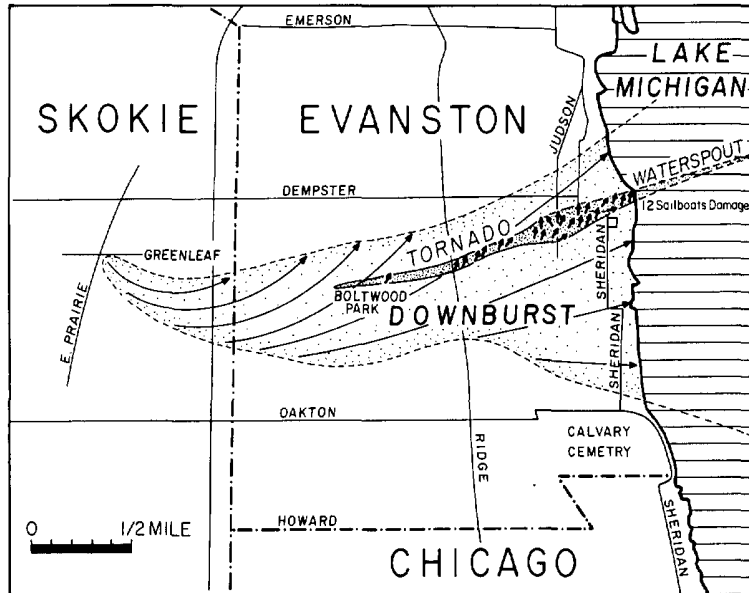
## 2. SEVERE THUNDERSTORMS and MICROBURST in UTAH on July 6, 1985

On July 6th, dry thunderstorms produced frequent lightning and strong winds in the Salt Lake and Provo areas of Utah. Lightning struck a large transformer in Salt Lake, sending a 200ft. fireball into the air and blacking out almost the entire state for up to 5 hours. Photos below and right show the turbulent cloud base of the storm and rising dust from winds in the Salt Lake area. The bottom four photos show the curling dust of a microburst 1/2 mile south of Provo, looking northeast from I-15. The photos were taken at 5-7 second intervals at about 1820MST. ---All photos by Duane J. Stiegler, University of Chicago.



### 3. TORNADO and DOWNBURST at EVANSTON, ILLINOIS on July 4, 1985

Independence Day festivities came to a roaring close in Evanston, Illinois as a late-evening thunderstorm produced a downburst and small, short-lived tornado in the Chicago suburb. Surveys by the University of Chicago and the National Weather Service found that the tornado actually occurred within the downburst region, a relatively uncommon event. In its last stages, the tornado became a waterspout as it moved out over Lake Michigan. Although damage was limited mostly to trees, some homes needed structural repairs as a result of the falling trees. In addition, twelve sailboats were flipped over and damaged as the tornado moved over lakefront beaches.



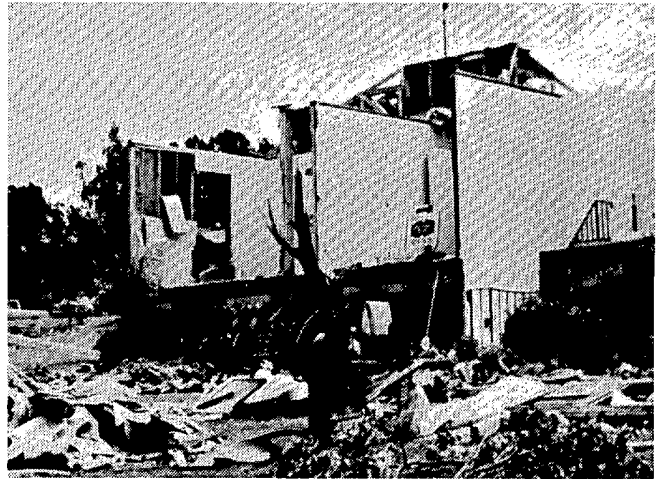
Examples of the tree and home damage caused by the tornado and downburst. ---Photos by Brian Waranauskas, University of Chicago; map by University of Chicago.

#### 4. TORNADO in CENTRAL VIRGINIA on July 25, 1985

The strongest and only F3 tornado of July was spawned by Hurricane BOB on the Albemarle-Greene County Line of Virginia at U.S. Highway 29. Although it was a strong tornado, its path length was only 0.1 mile as it moved from south-southeast to north-northwest over a grocery store and into a subdivision. No deaths or injuries occurred.



Two views of the back wall of the first house that was hit by the tornado as it moved through the subdivision.



A second home hit by the tornado is shown from the front (above two photos) and the rear (below right).

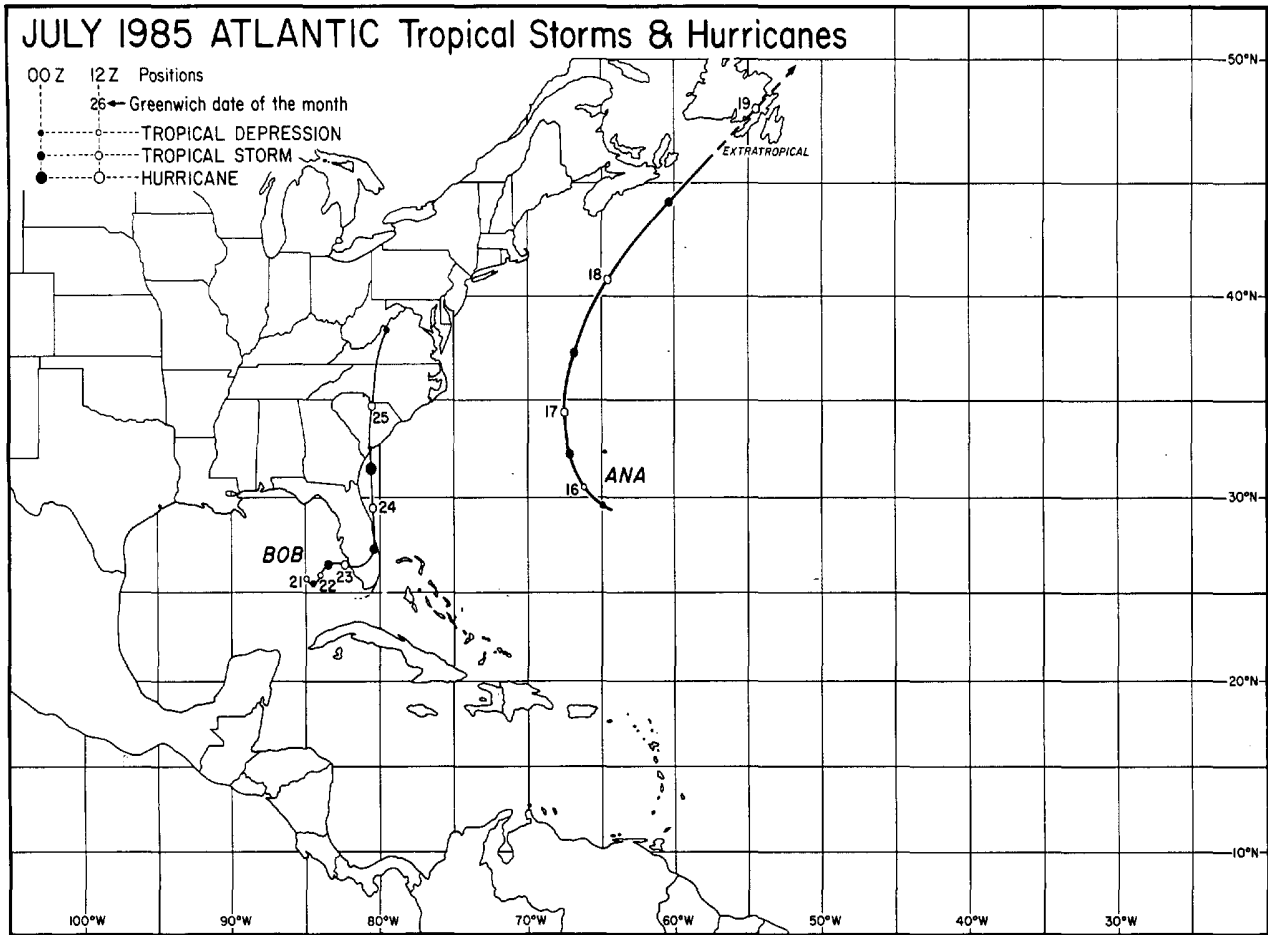


A swingset, anchored with concrete, that was pulled from the ground in the foreground.

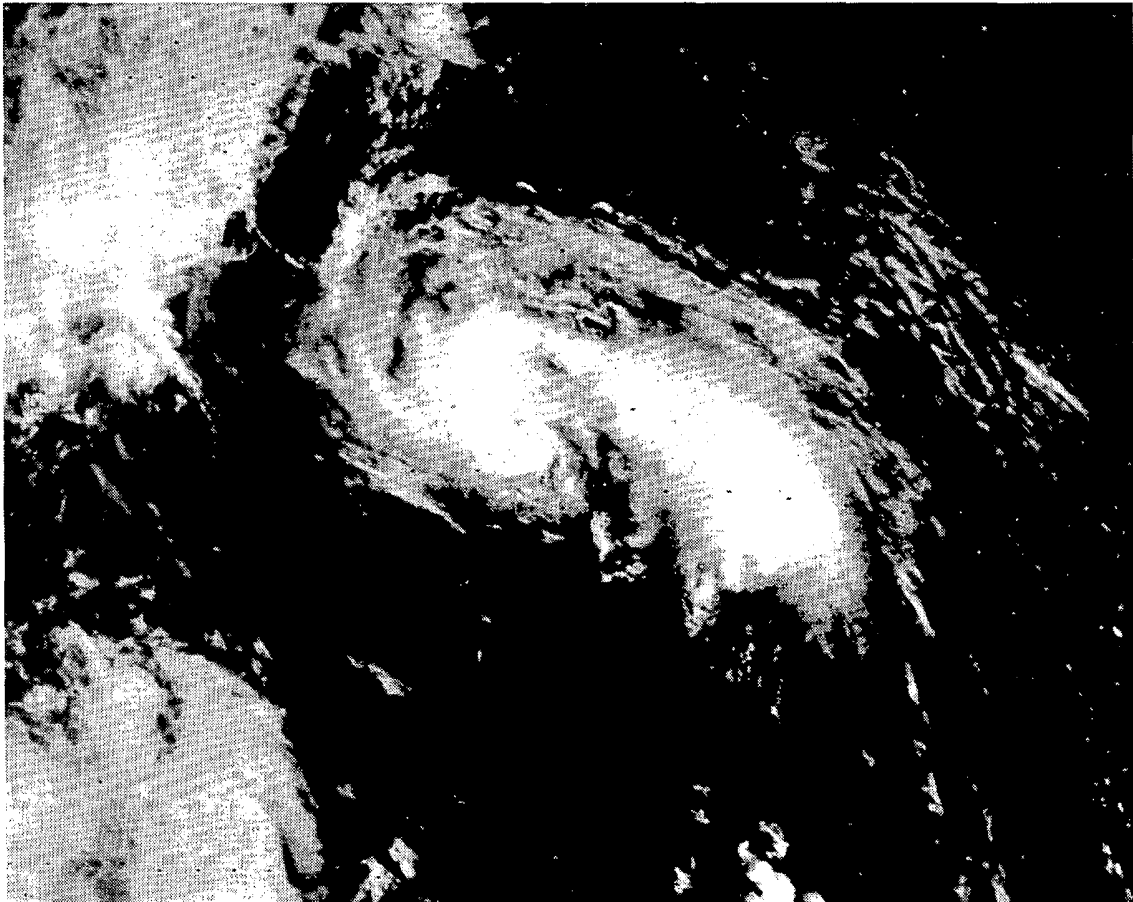


---All photos by Roy L. Britt, Richmond, Virginia.

# TROPICAL STORMS AND HURRICANES



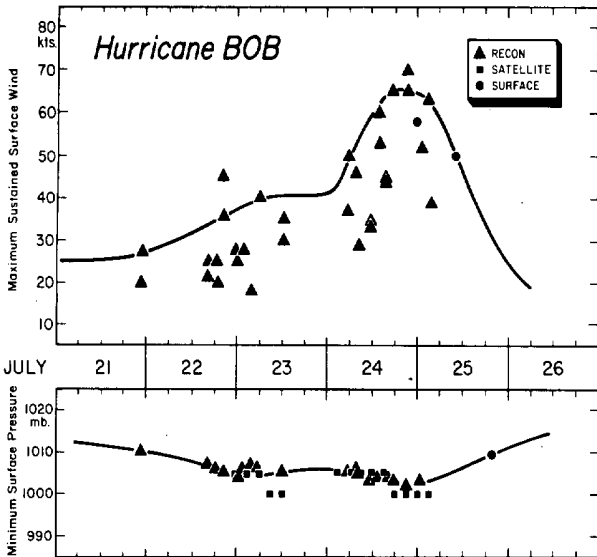
---Best track data from the National Hurricane Center, Miami, Florida.



Tropical Storm ANA at 1101 EST (1601 GMT) on July 17th.

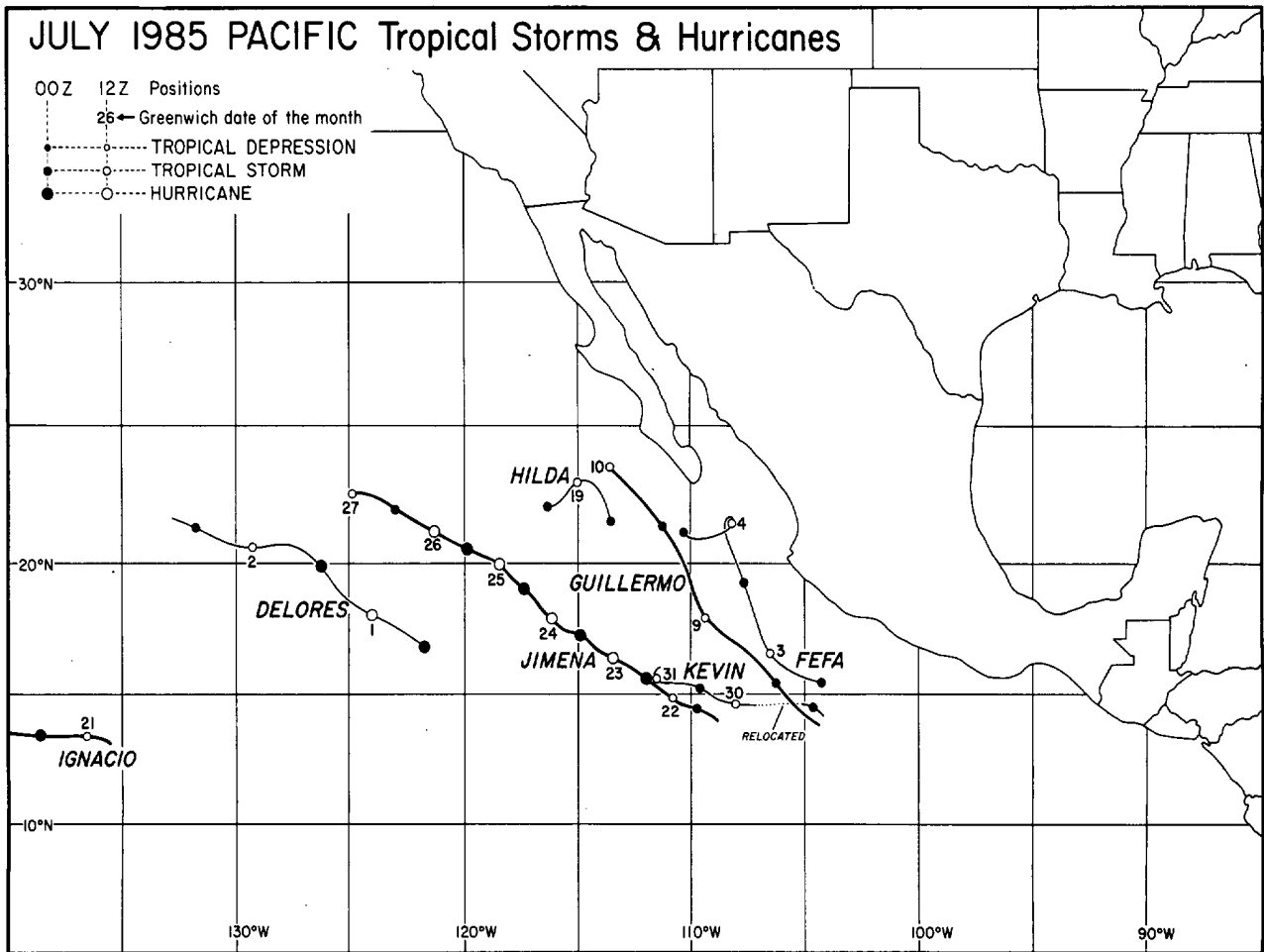
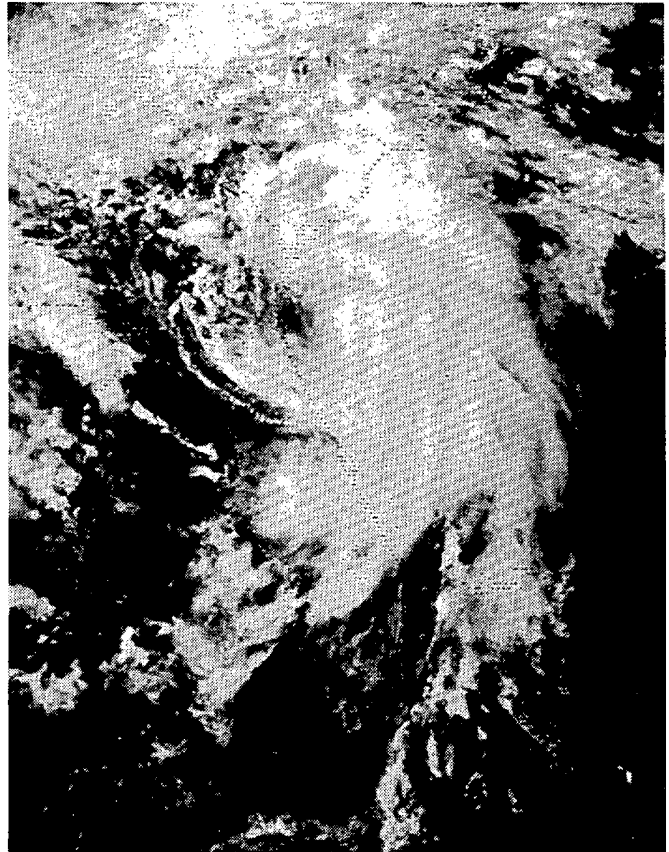


TROPICAL STORMS and HURRICANES ---- continued



Maximum sustained surface winds and minimum surface pressure for the life-time of Hurricane BOB.

RIGHT: Hurricane BOB at 1431 EST (1931 GMT) on July 24th, as it was bearing down on South Carolina.



---Best track data from NWSFO, San Francisco, California.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
<b>1 ALABAMA</b>									
NW Limestone County	01	1639CST			0	0	?	?	Hail
	Hail to 1 1/2 inches in diameter reported in the Elk River Mill Community of extreme NW Limestone County.								
Samson, Geneva County	02	1445CST			0	0	4	0	Thunderstorm/Wind
	Thunderstorm winds snapped a main powerline and a transformer and other equipment was dropped to the ground.								
Geneva, Geneva County	02	1515CST			0	0	4	0	Thunderstorm/Wind
	One car was damaged by a falling powerline pole. One home was damaged by a falling tree and some trees were reported down all over town due to thunderstorm winds.								
Huntsville/Madison County Airport	05	1236CST			0	0	?	?	Thunderstorm/Wind
	Winds gusted to 63MPH.								
Citronelle, Mobile County	06	0100CST			0	0	3	0	Thunderstorm/Wind
	Thunderstorm winds downed several powerlines.								
Daphne, Baldwin County	06	0300CST	1	30	0	0	4	0	Waterspout/Tornado
	Damage from a waterspout that moved onshore included one home and one automobile damaged by falling trees. (FO)								
Madison County	10	1920CST			0	0	2	0	Thunderstorm/Wind
	Thunderstorm winds downed some powerlines along U.S. 431 and Wilson Man Road.								
Lawrence County	10	1932-2005CST			0	0	5	0	Thunderstorm/Wind
	Hail to golfball size was reported near Wheeler at 1932CST, and 3/4 inch hail accompanied by damaging winds was reported in the Moulton and Landersville areas at 1954CST. A house was reported damaged at Mt. Hope at 2005CST.								
Florence area, Lauderdale County	10	2010-2015CST			0	0	5	0	Thunderstorm/Wind
	Falling trees downed some powerlines. Also, numerous lightning strikes ignited some fires, with two power substations struck by lightning.								
Nassey, Morgan County	10	2030CST			0	0	?	?	Hail
	Hail to 3/4 inch in diameter reported.								
Cuntersville area, Marshall County	10	2050CST			0	0	3	0	Thunderstorm/Wind
	Thunderstorm winds downed trees and powerlines and destroyed a small building at a baseball park.								
Albertville, Marshall County	10	2110CST			0	0	?	?	Thunderstorm/Wind
	Thunderstorm winds downed several trees along Main Street. Falling trees and tree limbs downed some utility lines. Intense lightning strikes accompanied the storm, with numerous reports of lightning damage to electrical appliances. Some livestock were reported to have been killed by the lightning.								
Birmingham area, Jefferson County	11	1335CST			0	0	?	?	Hail
	Hail to 3/4 inch in diameter briefly covered the ground in the Cherokee Bend area of Mountain Brook.								
Mellow Valley, Clay County	11	1423CST			0	1	0	0	Lightning
	A 26 year old man was knocked down by a lightning strike that had struck a tree about 150 yards away. The man was turning off valves to an underground watering system when the incident occurred. He experienced brief numbness in his legs, but was okay otherwise.								
Calera, Shelby County	11	1620CST			0	0	3	0	Thunderstorm/Wind
	Thunderstorm winds downed some trees and damaged powerlines.								
Pleasant Grove, Jefferson County	11	1655CST			0	0	4	0	Thunderstorm/Wind, Hail
	Thunderstorm winds downed a few trees and caused other minor wind damage. Hail to golfball size covered the ground. The same storm also covered the ground with marble size hail in nearby Hueytown.								
Excel, Monroe County	11	2000CST			0	0	4	0	Lightning
	A lightning strike to the roof of a home ignited a fire that destroyed about one-half of the house.								
Black Warrior River, Jefferson County	15	1330CST			0	0	5	0	Thunderstorm/Wind
	Thunderstorm winds estimated at more than 60 MPH damaged two boats at the junction of Valley Creek and the Black Warrior River.								
Florence area, Lauderdale County	15	1510CST			0	0	4	0	Thunderstorm/Wind
	Thunderstorm winds damaged the roof of a house, damaged a mobile home and destroyed an outbuilding north of Florence.								
Harvest, Madison County	15	1555CST			0	0	4	0	Lightning
	Two cows were killed by a lightning strike.								
NW of Moulton, Lawrence County	15	1625CST			0	0	?	?	Hail
	Hail to golfball size reported NW of Moulton in the Lossier Community.								

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
<b>ALABAMA</b>									
Tanner, Limestone County	15	1645CST			0	0	?	?	Hail
	Hail to 3/4 inch in diameter reported.								
Rainsville area, DeKalb County	15	1725CST			0	0	?	?	Thunderstorm/Wind, Hail
	Thunderstorm winds destroyed a small outbuilding. Marble size hail was also reported.								
Scottsboro, Jackson County	15	1730CST			0	0	2	0	Thunderstorm/Wind
	Thunderstorm winds downed a powerline.								
Cuntersville/Albertville area, Marshall County	15	1755-1811CST			0	0	4	0	Thunderstorm/Wind
	Thunderstorm winds downed trees and utility lines in the Signal Point area east of Cuntersville and north of Albertville. Some bathhouses were damaged, three outbuildings were destroyed, two utility poles snapped, and one home was damaged by a falling tree.								
Barton, Colbert County	16	1330CST			0	0	4	0	Lightning
	A lightning strike was blamed for a fire that destroyed the control tower and concession stand at the North Alabama Raceway. Losses included new timing equipment that had just been installed in the tower.								
Logan Martin Lake, St. Clair County	16	1400CST			0	0	5	0	Thunderstorm/Wind
	Thunderstorm winds damaged several mobile homes and downed several trees on Hammond Island. One tree fell on the causeway.								
NE Birmingham, Jefferson County	22	1130CST			0	0	2	0	Thunderstorm/Wind
	Thunderstorm winds uprooted two large trees near Center Point.								
Hanceville area, Cullman County	22	1530CST			0	0	3	0	Lightning
	Eight cows were killed by lightning strikes.								
Fairview area, Cullman County	22	1830-1900CST			0	0	4	0	Lightning
	Lightning strikes killed 10 head of cattle and also ignited a fire that destroyed a machinery shed and its contents.								
Mobile area, Mobile County	23	1300-1330CST			0	0	5	0	Thunderstorm/ Lightning, Flooding
	The house fires were caused by lightning strikes. Thunderstorm rains also produced extensive flooding of streets.								
NE Alabama	24	All Day			0	0	6	0	Flash Flooding
	An intense thunderstorm complex that drifted slowly SW during the morning over Cherokee and DeKalb Counties produced extensive flash flooding along the Little River and its tributaries. Flooding was extensive in low areas and along creeks in the Ft. Payne and Collinsville areas of DeKalb County. The flooding began in Ft. Payne around 0830CST, where several people had to be evacuated from their homes. One mobile home was completely destroyed after being swept off its foundation. Ft. Payne had 4.82 inches of rain between 0600 and 1000CST. An automatic rain gauge near Collinsville recorded three inches of rain between 1000 and 1100CST and a storm total of more than 6 inches. An unofficial report of about 12 inches of rain was received from atop the mountain east of Collinsville. Flooding was extensive along Little River and its tributaries on Lookout Mountain. As the flood waters roared down from the mountain into Mouth Park in Cherokee County around 1045CST, a small stream on the opposite side of the park from the river quickly flooded and cut off the escape route from the park. Seven campers sought refuge on top of the concession stand. A rescue attempt by boat failed when the boat was swamped and dumped 4 people into the water. The rescuers held onto trees and were later rescued by a large boat. The campers were rescued by helicopter. Several other people along Little River and its tributaries had to be rescued by helicopter. Wolf, Yellow and Johnnies Creeks experienced major flash flooding. Wolf Creek appeared to have reached some 300 yards wide. A new threat developed around 1420CST when an earthen dam across Johnnies Creek just upstream from Mouth Park appeared to be failing. The dam was topped, but only a small portion of the dam adjacent to the spillway actually eroded. Several roads were cut in Cherokee County and 28 bridges were damaged or destroyed. Eight homes and mobile homes were flooded in Cherokee County. The flood waters from Wolf Creek, Yellow Creek and the Little River flowed into Weiss Reservoir, and the reservoir was able to handle the runoff. But the runoff produced extensive flooding along Black Creek in Etowah County where 3 bridges were destroyed.								
Atmore area, Escambia County	25	Mrg			0	0	5	0	Flash Flood
	Three bridges were reported washed out in the Atmore area and several homes and businesses were damaged by flood waters. Vehicles traveling along flooded streets in the downtown area sent additional water into stores before traffic was halted. Two people had to be evacuated by rescue workers.								

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
<b>ALABAMA</b>									
Escambia County	26	Mng			0	0	4	0	Flash Flood
Heavy rains and flash flooding hit parts of Escambia County for the second morning in a row. Water entered several houses in the Pearch and McCullough Communities north of Atmore. Five families had to be evacuated by rescue workers.									
Muscle Shoals, Colbert County	26	1412CST			0	0	?	?	Thunderstorm/Wind
Winds gusted to 67MPH at the Muscle Shoals Airport.									
<b>2 ARIZONA</b>									
Nogales, Santa Cruz County	5	2030MST			0	0	4	0	Wind
Strong, gusty winds during a thunderstorm downed power lines.									
Willcox, Cochise County	6	1700MST			0	0	0	0	Hail
During a thunderstorm, hail $\frac{1}{4}$ to $\frac{3}{4}$ inch diameter was reported in the area.									
Tucson, Pima County	6	1755MST			0	0	5	0	Wind
A thunderstorm with winds up to 66 mph swept through the city and downed power lines, trees and signs, and damaged roofs. An area of about $\frac{1}{4}$ square miles in south-central Tucson was left without power when winds snapped 3 poles carrying major transmission lines.									
Coolidge, Pinal County	7	2040MST			0	0	5	0	Wind
A severe thunderstorm with winds to 80 mph hit Coolidge Municipal Airport and damaged roofs of 2 buildings in the area. A Lockheed P2V was moved about 12 feet, though the brakes were set and the wheels chocked.									
Yuma, Yuma County	8	0645MST			0	0	4	0	Wind
Winds gusted to 62 mph during a thunderstorm, with only minor damage in the area.									
Greater Phoenix area, Maricopa County	8	1800-1900MST			0	0	5	0	Wind
A thunderstorm with winds to near 50 mph caused damage to numerous power lines, trees, signs, carparks and roofs.									
Nogales, Santa Cruz County	13	1600-1700MST			0	0	5	0	Wind
A severe thunderstorm with strong gusty winds and 1.3 inches of rain in an hour caused wind damage to roofs, signs and trees. Some streets were flooded with 10 to 12 inches of water.									
Munds Park, Coconino County	14	1350MST			0	0	0	0	Hail
Hail one inch in diameter began to accumulate on the ground at this small town about 20 miles south of Flagstaff.									
Coconino County	14	1430MST			0	0	0	0	Hail
One-half to three-quarter inch size hail piled up on the ground to a depth of 4 inches about 20 miles west of Flagstaff.									
Greater Phoenix area, Maricopa County	15-16	2300-0100MST			0	0	5	0	Lightning, Wind
An intense thunderstorm with winds up to 50 mph, very heavy rain and continuous lightning moved across the valley from east to west. The largest paging company sustained about \$150,000 in damage after a lightning bolt struck the 90-foot transmission tower, scorched printed circuit boards and short-circuited telephones and computers. Another bolt cut a 5-foot long slash in the roof of a nearby computer building. There was wind damage in scattered areas to power lines, carparks, signs and trees.									
Tucson, Pima County	17	1430MST			0	0	0	0	Flash Flooding,
A severe thunderstorm with 1 inch diameter hail at the Univ. of Arizona, winds of 50 mph and heavy rain with flash flooding moved across the city. 8 persons were swept down washes, but no one was injured. At Tucson International Airport, the temperature dropped to 77 degrees from 95 in 5 minutes.									
Green Valley, Pima County	19	Afternoon			1	0	0	0	Flash Flooding
At 3:55 pm, a 76 year old Green Valley woman was killed when she drove her car around barricades into a flooded wash (Drainageway 13) where it crosses La Canada Boulevard. Localized heavy rains of 2-3 inches were reported in the Green Valley area, and a severe thunderstorm warning was in effect.									
Tucson, Pima County	21	Afternoon			0	0	0	0	Flash Flooding,
Thunderstorms developed rapidly over the city with Wind about 1.5 inches of rain in an hour in the north-west portions of Tucson. Considerable street flooding resulted, with 5 streets closed for several hours. Tucson International Airport recorded 1.25 inches of rain with a wind gust to 51 mph.									
<b>ARIZONA</b>									
Wittmann, Maricopa County	29	2145MST			0	12	5	0	Wind
A severe thunderstorm and microburst with an estimated wind of 70 mph, damaged 30-40 mobile homes and destroyed 7, at Chapparal Ranch Trailer Park. Debris from one mobile home was scattered for more than a quarter mile.									
Phoenix, Scottsdale, and Paradise Valley; Maricopa County	29	2215MST			0	6	6	0	Wind, Flash Flooding
A severe thunderstorm and strong microburst produced gusts estimated at 80 to 100 mph. Heavy rain of over 2 inches in 45 minutes caused considerable street flooding. Widespread damage included: roofs blown off, windows damaged, some walls blown out of houses, and trees and 32 power poles downed.									
Portal, Cochise County	30	Afternoon			0	0	4	0	Flash Flooding
Heavy thunderstorms along the Chiricahua Mountains caused flooding in Cave Creek Canyon in the vicinity of Portal. Two small bridges were washed out and some property damage occurred at the Cave Creek Experimental Station in the Chiricahua Mountains in Cochise County.									
<b>3 ARKANSAS</b>									
Lonoke County	01	1630 CST			0	0	-	4	Hail
Hail fell across Ward and Cabot, down to the City of Lonoke. Hail size ranged from pea to golfball. Rice, soybean, and milo crops were damaged by the hail which lasted 15 minutes and piled up to six inches deep in spots.									
Pulaski County	01	1830 CST			0	3	4	-	Wind
Three minor injuries resulted when a thunderstorm blew over a mobile home in Sweet Home. At least three other homes were unroofed next to the overturned mobile home. Wind gusts were measured at 54 mph at Adams Field.									
Pulaski County	01	1900 CST			0	0	5	-	Lightning
Lightning started a fire which damaged the roof and second floor of a two-story home in Little Rock.									
Pope County	01	1936 CST			0	0	-	3	Lightning
A poultry house was struck by lightning in Russellville. The ensuing fire killed 50 percent of the turkeys housed there.									
Lonoke County	03	1500 CST			0	0	3	-	Wind
Very strong winds from a thunderstorm broke a large oak tree in two. Half the tree was blown against a home just outside of Cabot, on the east end.									
Greene County	05	1515 CST			0	0	-	-	Hail/Funnel Clouds
A Sheriff's deputy saw two funnel clouds in the Beachgrove Community, near Paragould. Golfball-size hail fell at the same time in Paragould itself.									
Lawrence County	05	1620 CST	.03	10	0	0	4	-	Tornado (F0)
A weak tornado touched down briefly five miles east of Walnut Ridge, along Highway 412. It damaged only one home by peeling off the siding, turning over a satellite antenna dish, and blowing a small car out of the carport. Movement was west at 10 mph.									
Greene County	05	about 1700 CST			0	0	-	-	Hail
Golfball to marble size hail was reported at Marmaduke.									
Faulkner County	10	1400 CST			0	1	2	-	Wind
High winds accompanying a thunderstorm knocked a mobile home off its foundation between Greenbrier and Springhill. A woman was closing the front door as the wind struck, falling down and breaking her pelvic bone. Trees were blown down at Vilonia about the same time.									
Pulaski County	10	1430 CST			0	1	3	-	Wind/Hail
A thunderstorm dumped golfball size hail and blew down signs, tree limbs, and trees in Jacksonville. A man went outside his office to check wind damage to his sign when a tree limb was broken off and struck him on the lower back. A storage building was unroofed at a lumber yard. Several trees were knocked down by the wind throughout the Little Rock Metropolitan area.									
Mississippi County	10	1515 - 1545 CST			0	0	3	-	Lightning
Two Blytheville residences were struck by lightning. One home had little damage while the second one had water and smoke damage from the fire that ensued.									
Yell County	10	1530 CST			0	0	3	-	Lightning
Lightning struck a Plainview home. It caused a gas heater to explode and started a fire.									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INURED	PROPERTY	CROPS	

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INURED	PROPERTY	CROPS	

## ARKANSAS

Sevier County	10	about 1900 CST			0	0	-	-	Wind
A thunderstorm moved through the county, blowing down trees, power lines, and tree limbs. Trees fell at DeQueen, Gillham, and other, unspecified areas of the county.									
Lafayette County	10	about 2025 CST			0	0	3	-	Wind
Thunderstorm gusts blew down a sign and threw it through the front window of a store in Lewisville. Power outages resulted from downed tree limbs or trees at Stamps and Lewisville.									
Hempstead County	12	0430 CST			0	0	4	-	Lightning
A fire resulted from a lightning strike on a storage building. The farm building was located one mile east of Blevins, and it was used for cold storage of eggs.									
Baxter County	15	about 1900 CST			0	0	5	-	Lightning
A residence just south of Mountain Home, along Highway 201, caught on fire after being struck by lightning. The home was a total loss.									
Hempstead County	16	about 1300 CST			0	0	3	-	Lightning
Lightning knocked out the telephone system at the Hope School Administration Building.									
Crawford County	16	about 1500 CST			0	0	4	-	Wind
Gusts from a thunderstorm damaged an auto parts store in Van Buren. The winds broke plate glass windows and damaged the sidewalk overhang and the roof.									
White County	17	1430 CST			0	0	3	-	Wind
Winds from a thunderstorm overturned a camper one mile north of Beebe along U. S. Highway 64. About a dozen trees were also knocked down in the same area.									
Lonoke County	21	about 1130 CST			0	0	3	-	Lightning
A farm home was set on fire by lightning. The bolt shattered the picture window and frame. It also cracked the cement driveway. The home was located four miles north of Humoke.									
Perry County	21	1222 CST			0	0	3	-	Wind
A strong thunderstorm blew two porches off. One came from a mobile home and the other from a house, both at Stony Point, just west of the Lock and Dam at Tead Suck.									
Carroll County	21	1500 CST			0	0	2	-	Lightning
Lightning set a 17-foot fishing boat on fire on Beaver Lake, close to the Boone County line. One occupant of the boat was found unharmed the following day. Originally, he was presumed dead in the boat.									
Sebastian County	23	about 1400 CST			0	0	4	-	Lightning
A fire started by lightning, totally consumed a home southwest of Mansfield.									
Sebastian County	25	1730 CST			0	0	3	-	Lightning
Lightning struck the attic of a home in Fort Smith. Fire damage was confined to the roof and attic.									
Boone County	30	1530 CST			0	0	?	-	Wind
A school building at Bergman was damaged by gusts from a thunderstorm. The building suffered wind damage to the roof and water damage to the floor and contents.									

## 4 CALIFORNIA, Northern

Yosemite National Park	27	1730PST			2	3	-	-	Lightning
Five hikers on the summit of Half Dome were struck by lightning.									
Sequoia National Park	27	Unknown			1				Lightning
Single hiker on Morro Rock struck by lightning.									

## 4 CALIFORNIA, Southern

Yucca Valley, San Bernardino County	15	1200-1500PST			0	0	?	0	Flash Flood
Fifty homes were flooded with two or three feet of water and roads were impassable by mud and debris.									
Twenty-Nine Palms, San Bernardino County	15	1200-1500PST			0	0	?	0	Flooding
Five homes suffered minor flooding.									
Cajon Pass, South of Cajon Summit; San Bernardino County	15	1300PST			0	2	?	0	Heavy Rainstorm
A blinding rainstorm caused a series of traffic accidents. At least ten vehicles were involved in two non-injury accidents and two minor injury accidents south of Cajon Summit.									
Mormon Rock, San Bernardino County	15	1300PST			3	0	?	0	Heavy Rainstorm
A plane crashed in Cajon pass near Mormon Rock, killing a man, woman and a four or five year old boy.									
Palm Springs, Riverside County	15	1500PST			0	0	?	0	Heavy Rainstorm
The Palm Springs Aerial Tramway was shut down by a storm-caused power failure. 145 people were stranded on the tramway and were rescued by helicopter when the storm knocked out power. The road and three parking lots below were inundated. California Highway 111 into Palm Springs was closed to westbound traffic due to flooding.									
Needles, San Bernardino County	15	1900PST			0	4	?	0	High Winds
High winds whipped through a mobile home park and destroyed three homes, damaged four others and injured four people.									

## 5 COLORADO

Weld County	1	evening			0	0	0	4	Wind, Hail	
A thunderstorm dumped 1.25 inches of rain near Nunn. Small hail and gusty winds caused damage to wheat, millet, and sunflowers.										
Garfield County	4	1500-1530MST			0	0	4	0	Wind	
Strong winds gusted to 70 mph in Glenwood Springs. The gusts were probably thunderstorm microbursts. Trees and power lines were downed, and one tree crushed a tool shed and a fishing boat.										
Arapahoe County	9	1710MST			0	0	0	0	Hail	
3/4 inch hail fell 7 miles west of Deer Trail.										
Elbert County	9	1836-1846MST			0	0	0	0	Hail	
Hail up to 7/8 inch in diameter piled up two inches deep just south of Elbert.										
Chaffee County	12	1430MST			0	1	0	0	Lightning	
A person was struck by lightning and injured slightly near Salida.										
Arapahoe and Douglas Counties	13	1720-1745MST			0	0	0	0	Heavy Rain	
Thunderstorms drenched an area in extreme northern Douglas County with 1 1/2 inches of rain in just 30 minutes. Half an inch fell in 15 minutes in Littleton.										
Jefferson County	14	2100MST			0	0	0	0	Hail	
Golfball size hail fell at Green Mountain, in the foothills west of Denver.										
Front Range	14-15	2200-0200MST			0	0	5	3	Thunderstorms	
Thunderstorms dumped heavy rain and hail at numerous spots along the Front Range from Denver to Fort Collins. Some of the heaviest rain fell in the northern and western suburbs of Denver. 2.6 inches drenched Arvada, and Thornton was soaked with 2 inches in 45 minutes. At least five homes in Arvada suffered extensive damage from water and mud, and many streets and basements were flooded. In southern Jefferson County, 11 homes were struck by lightning. Farther north, 2 1/2 inches of rain fell near Fort Collins; a spot three miles SSE of the city had 1.01 inches in 35 minutes. Some irrigation ditches overflowed, and hail shredded tomato plants in the area. In Longmont, gusty winds toppled a tree onto a car. The rain also hit an area just west of Greeley; .61 inch fell in just 15 minutes.										
Weld County	14	1635-1642MST			0	0	0	0	Hail	
Hail up to 9/10 inch in diameter piled up 3 inches deep 20 miles north of Nunn, near the Wyoming border.										
Weld County	15	1432MST			0	0	0	0	Heavy Rain	
A thunderstorm dumped an inch of rain in just 10 minutes 3 miles south of Roggen.										
Jefferson County	15	1512MST			0	0	0	0	Hail	
Golfball to baseball size hail fell 15 miles northwest of Deckers.										
Douglas County	15	1524-1530MST	1	30	0	0	0	4	0	Tornado (F1)
A tornado 2 1/2 miles southeast of Elizabeth damaged two homes and two barns. FPP111										

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

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					KILLED	INJURED	PROPERTY	CROPS	
<b>COLORADO</b>									
Weld County	15	1545-1630MST			0	0	4	5	Hail
									Hail up to 2 inches in diameter fell 3 miles east and southeast of New Raymer, and piled up 5 inches deep. Trees were stripped, and house and car windows were broken. The hail fell for 15 minutes in some places, leveling wheat and other grain crops. Severe weather reports: Golfball size hail just south of New Raymer (NE Weld Cy) 1 1/2 inch hail 5 miles west of Stoneham 2 inch hail 3 miles east of New Raymer
	MST								
	1558								
	1601								
	1620								
Morgan County	15	1700MST			0	1	3	6	Hail
									Baseball size hail pounded an area north of Wiggins, in the western part of the county. 9600 acres of crops were destroyed or severely damaged, including 3200 acres of wheat. One person in a field was injured by the hailstones, and windows were broken in at least one farmhouse. Total damage, mostly to crops, was estimated at over five hundred thousand dollars.
Douglas County	17	1500-1530MST			0	0	3	0	Thunderstorm
									.79 inches of rain fell in 30 minutes at Castle Rock. Much of the town lost power when lightning struck the city's transformer.
NE Colorado	18	1600-2100MST			0	0	5	5	Severe Thunderstorms
									Severe thunderstorms were widespread across northeastern Colorado, and produced heavy rain, hail, and strong winds. 70 mph winds hit Burlington in Kit Carson County around 1730; the city was drenched by 3.51 inches of rain. 23 power poles were downed, and some sprinkler systems were damaged. Two horses were killed by lightning near the town. Just west of Burlington, 5 to 6 inches of rain fell; the downpours damaged corn and bean crops. In extreme southern Yuma County, wind gusts caused \$8000 damage to a store in Kirk. Farther north in Morgan County, 1 inch hail fell 6 1/2 miles southeast of Fort Morgan at 1830. There was some crop damage in the area. Heavy rain also hit areas closer to the foothills. 3.24 inches fell 5 miles northeast of Byers in Arapahoe County, and over two inches doused the southwest suburbs of Denver. There was street flooding in the Montbello area of the city. 1 to 2 inches of rain also fell farther north in parts of Larimer and Weld Counties.
Morgan County	18	1855MST	1/4	30	0	0	4	0	Tornado (F1)
									A tornado touched down briefly 3 miles north of Fort Morgan. It unroofed a shed, destroyed a satellite dish, and damaged a house. FPP101
Rio Blanco County	18	evening			0	0	0	0	Heavy Rain
									1 1/2 inches of rain fell in Meeker in just 20 minutes, causing local flooding.
Douglas County	19	1507-1517MST	1/2	40	0	3	5	0	Tornado (F2)
									A tornado touched down in the Surrey Ridge area of northern Douglas County, just west of Interstate 25. Ten homes were damaged; one under construction was nearly destroyed. The tornado moved from southwest to northeast across I-25, throwing two vehicles off the freeway and injuring three people in the process. A pickup truck was thrown 50 feet by the twister. FPP201
Denver area	19	1430-1700MST			0	1	6	0	Severe Thunderstorms
									A cluster of severe thunderstorms, including the one that produced the Surrey Ridge tornado, pounded the entire Denver area with torrential rain, hail, and wind. The heaviest rain fell in Aurora; one spot in the central part of town had 2.37 inches in just 40 minutes, and a spot in northeast Aurora recorded a total of 4.30 inches during the storm. There was extensive street and basement flooding, and a number of roads were damaged or washed out. Golfball size hail in the city piled up 5 inches deep in at least one spot. An inch of rain fell in 20 minutes at Stapleton Airport; the airport had to close for an hour. 1 1/2 inches of rain fell in just 15 minutes in central Denver, and Interstate 25 was closed due to high water. The water was so deep in some spots that one vehicle on the freeway was completely submerged; and people were diving off the freeway overpass into the deep water covering the pavement. Three homes in Littleton were damaged by lightning. On the 11th floor of a southeast Denver apartment building, the west facing windows of two apartments blew in; the east facing windows then blew out! Aside from the injuries caused by the tornado, only one person was hurt during the storm; a boy suffered minor injuries when he was washed into a drainage ditch in Aurora. SEVERE WEATHER REPORTS ON JULY 19: .50 inch of rain in 10 minutes in Kittredge (central Jefferson County) 1 1/2 inch hail in central Aurora (SW Arapahoe) 2.37 inches of rain in 40 minutes in central Aurora Golfball size hail in northeast Aurora (SW Adams)
	MST								
	1435								
	1457								
	1509								
	1522								

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					KILLED	INJURED	PROPERTY	CROPS	
<b>COLORADO</b>									
	1530								1 inch of rain in 30 minutes at Intercanyon (Central Jefferson)
	1540								1 1/2 inches of rain in 15 minutes in central Denver
	1600								1 inch hail in southeast Aurora (SW Arapahoe)
	1605								1.75 inches of rain in 45 minutes in northwest Aurora (SW Adams)
	1635								2 inches of rain in 35 minutes at Barr Lake (NW Adams)
Colorado Springs Area	19	1700-2000MST			0	0	6	4	Heavy Rain
									Slow-moving thunderstorms inundated the southwestern section of Colorado Springs with up to 6 1/2 inches of rain in three hours. 2 1/2 inches fell in just 20 minutes in the Broadmoor area. Downpours also occurred to the west of the city in Park and Teller Counties. All these areas had many roads damaged or washed out. In Colorado Springs, many vehicles were damaged, and numerous homes had basement flooding. Many culverts were washed out. Damage to roads alone in Park, Teller, and El Paso Counties was estimated at over 700 thousand dollars.
Fremont County	19	2051MST	1	30	0	0	0	0	Tornado (F1)
									A tornado touched down briefly one mile north of Penrose. FPP101
Fremont County	19	evening			0	0	5	0	Thunderstorms
									Heavy rain washed out culverts, bridges, and irrigation systems near Canon City. At 2030, lightning started a fire that destroyed a 90 thousand dollar home in that city.
Western Colorado	20	evening			0	0	4	0	Heavy Rain
									11 inches of rain fell in just over half an hour just west of Grand Junction. There were numerous other areas of heavy rain on the west slope. The rain caused flooding in Parachute (Garfield County), and mudslides at Wolcott (Eagle County) and near Redstone (Pitkin County). Three feet of water covered a highway 9 miles south of Rifle, in Garfield County.
Larimer County	20	1730-1750MST			0	0	0	0	Heavy Rain
									An inch of rain fell in just 20 minutes 7 1/2 miles west of Loveland.
Pueblo County	21	1600-1730MST			0	0	0	0	Heavy Rain
									Up to 2 1/2 inches of rain fell in Pueblo, with the greatest amount on the south side of town. Some street flooding occurred.
Jefferson County	22	1320-1355MST			0	0	0	0	Heavy Rain
									1.55 inches of rain drenched Deckers, in southern Jefferson County, in just 35 minutes.
Fremont County	22	1453MST	1	30	0	0	3	0	Tornado (F1)
									A tornado touched down briefly in the northern part of Canon City, causing minor damage to a house. FPP101
Weld County	22	1700-2100MST			0	0	4	0	Heavy Rain
									Heavy rain drenched parts of Weld County from Greeley northward. The largest amount recorded was 4.75 inches one mile east of Galeton. 1.8 inches fell in just 45 minutes 4 miles north of Gill. The rain caused Lone Tree Creek to rise rapidly, flooding two roads and two homes.
Pueblo County	23	1900MST			0	0	4	0	Heavy Rain
									An inch of rain fell in 30 minutes at Pueblo, causing local flooding and washing out 100 feet of road. Some power outages occurred.
Weld County	26	1435-1453MST	1/2	50	0	3	4	4	Tornado (F1)
									A tornado touched down five miles east of Erie and stayed on the ground continuously for 18 minutes. The twister stalled in an open field for much of that time. The storm damaged a few cars on Interstate 25; three people suffered minor injuries from broken glass. The twister flipped over a van, blew out car windows, and ripped up a street sign. It blew an outbuilding off its foundation. This was a long, ropelike tornado with a white funnel. It also damaged some wheat growing in the area. There were a number of other funnel clouds sighted near this tornado, one of which was visible at the National Weather Service office in Denver. FPP101
Adams County	26	1708-1712MST	1/2	30	0	0	0	0	Tornado (F1)
									A tornado touched down briefly 8 miles north of Bennett. FPP101
Jefferson County	28	1326MST			0	0	0	0	Heavy Rain
									1.3 inches of rain fell in 30 minutes at Deckers, along with small hail.
El Paso County	28	1400-1700MST			0	0	5	5	Heavy Rain
									The town of Fountain, just south of Colorado Springs, was drenched with up to 5 inches of rain in three hours. Jimmy Camp Creek rose 6 to 7 feet, causing one building to collapse. 60 people were evacuated. There was severe street flooding which caused some roads and driveways to wash out. Power outages occurred, and water rose to waist deep level in a shopping center parking lot. Almost simultaneously, similar amounts of rain fell in the northern section of Colorado Springs. Again, the deluge produced flooding that caused damage to streets and roads.
Mineral County	28	aftn.			0	0	0	0	Heavy Rain
									2.41 inches of rain fell in 4 hours at Creede, an unusually heavy amount for a mountain town 8800 feet above sea level.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

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					KILLED	INJURED	PROPERTY	CROPS	

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	

## — COLORADO

Baca County	29 1700MST	0 0 4 0	Rain, Wind A thunderstorm deluged an area four miles southeast of Walsh. Three inches of rain fell in 20 minutes. The storm was accompanied by strong winds that damaged a barn, sprinkler system, and a chicken house. The gusts also toppled a few telephone poles in the area.	
El Paso County	29 1833-1855MST	0 0 0 0	Heavy Rain An inch of rain fell in just 22 minutes northeast of Colorado Springs, between Peyton and Falcon.	
Arapahoe County	30 1527MST	1/2 50 0 0 0 0	Tornado (F1) A tornado was spotted in open country 10 miles SSW of Bennett, moving toward the south. FPP101	
Northeast Colorado	30 aftn, eve.	0 0 4 5	Severe Thunderstorms Thunderstorms brought heavy rain and large hail to many spots in northeastern Colorado. The storms started in Larimer County, then moved east across the prairies. 2 1/2 inches of rain fell in just 45 minutes in the extreme northwest part of the county, along with hail that destroyed hayfields. Heavy rain caused extensive street flooding in Fort Collins. The hail spread eastward, damaging crops near Prospect Valley (Weld County) and causing heavy damage to corn in Morgan County near Hoyt. Up to 5 inches of rain fell in the Fort Morgan-Brush area, causing widespread basement and street flooding and washing out some roads. Akron, in Washington County, also received heavy rain and suffered some street flooding. SEVERE WEATHER ON JULY 30: Golfball size hail 17 miles northwest of Livermore (N. Larimer) with 2.25 inches of rain in 45 minutes. 1 inch hail in south Lakewood (E. Jefferson Cy.) Golfball size hail 5 miles south of Prospect Valley (N. Adams) 2.83 inches of rain in Fort Morgan	
Yuma County	30 2320MST	1/2 40 0 2 5 0	Tornado (F2) A tornado 12 miles northeast of Yuma completely demolished a mobile home. The home was completely blown off its base, and a portion of the trailer landed on the roof of an adjacent barn. Two people in the trailer suffered minor injuries; two others were unhurt. About three inches of rain fell in the area. FPP201	
Weld County	31 1850-1900MST	0 0 0 0	Hail Hail 3/4 to 1 1/4 inch in diameter pelted the extreme northeast corner of Weld County, 21 miles north of New Raymer. Winds gusted to 50 mph in the area.	

## 6 CONNECTICUT

Litchfield County	06 Late Afternoon	0 0 0 0	Thunderstorm Winds Heavy thunderstorms with gusty winds knocked down tree limbs and wires, resulting in power outages affecting about 6,500 electric customers. Towns most affected included: Bethlehem, Cornwall, Goshen, Litchfield, Morris, Salisbury and Sharon.	
Bethlehem and Watertown, Litchfield County	06 1540EST	0 0 0 0	Funnel Clouds Several funnel clouds were spotted accompanying heavy thunderstorms through the area.	
Central and North Central Portion	10 Early Morning	0 1 3 0	Lightning A camper was slightly injured by a bolt of lightning at Black Rock State Park. Lightning caused power outages affecting up to 8,000 electric customers, with more than half of the power failures occurring in Southington and Bristol. Outages also occurred in the towns of Enfield, Windsor Locks, Suffield and East Windsor. A farmhouse was struck by lightning in Watertown.	
Fairfield, Fairfield County	22 Early Morning	0 0 3 0	Lightning A bolt of lightning struck the stone bell and clock tower of an 88 year old church and smashed a two foot hole in the wood and slate, pyramid style roof, shattering some main support beams. Damage was estimated in the "tens of thousands" of dollars.	
Central Portion	31 Afternoon and Evening	0 0 3 0	Heavy Rain and Flooding Heavy rain resulted in localized street flooding in the Rocky Hill and Weathersfield area. Shuttle Meadow Reservoir, in the New Britain area, reported the greatest single day rainfall (3.85 inches) in over one year.	

## 7 DELAWARE

New Castle County	10 1100-1200EST	0 0 4 0	Thunderstorm A thunderstorm gust clocked at 57 mph at the Wilmington Airport at 1134 AM EST downed trees and interrupted power in the area.	
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## — DELAWARE

Statewide	31 1530-1830EST	0 2 4 0	Thunderstorm Repeated downburst activity spread south across the state during the evening. Thunderstorm winds uprooted trees, downed branches, and tore a roof off a house in Delaware City at 345 PM EST. A roof was blown off a barn, five pig pens destroyed and numerous trees were downed near Vernon at 540 PM EST. One house trailer was demolished and the couple inside hospitalized near Ellendale between 530 and 600 PM EST. A series of five parallel damage paths were found in the nearby woods.	
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## 8 FLORIDA

Tampa, Hillsborough Co.	04 1423EST	0 0 0 0	Thunderstorm Wind A wind of 58 knots was recorded at McDill AFB.	
Tallahassee, Leon Co.	04 1445EST	0 0 1 -	Thunderstorm Wind Trees and power lines were downed and a wind of 50 knots was recorded at a TV station.	
Lake Okeechobee, Okeechobee Co.	04 1515EST	0.5 10 0 0 0 -	Funnel Cloud A sheriffs deputy reported two funnel clouds just northeast of Lake Okeechobee.	
Mascotte, Lake Co.	07 1715EST	0 0 4 -	Thunderstorm Wind Camper tops at a sales lot were destroyed by high wind. A gas station roof was blown off. Several trees were downed. A mobile home roof was blown off.	
Mims, Brevard Co.	07 2100EST	0 0 2 -	Thunderstorm Wind Trees and power lines were downed by high wind.	
Tampa, Hillsborough Co.	08 1350EST	1 0 0 0	Lightning A 45 year old man was struck by lightning while working on a water tower.	
Fort Myers, Lee Co.	08 1433EST	0 0 3 0	Thunderstorm Wind High wind damaged screen enclosures and flying debris damaged several mobile homes.	
Oakland Park, Broward Co.	09 1600EST	0 0 4 -	Thunderstorm Wind Several airplanes were blown over at Ft. Lauderdale executive airport. Trees and power lines were downed.	
Boynton Beach, Palm Beach Co.	10 1410EST	1 1 0 0	Lightning A 24 year old man was killed and a 26 year old man was injured when lightning struck the deceased man. The thunderstorm approached rapidly and rain had not started when the lightning struck.	
Tampa, Hillsborough Co.	14 1753EST	0 0 0 0	Funnel Cloud The observer at Tampa International Airport reported a funnel cloud.	
Jacksonville, Duval Co.	15 1500EST	1 0 0 0	Lightning A 12 year old boy was killed when lightning struck him while he was fishing off a dock. Two other friends left the dock seconds before as rain had just started.	
Port St. Lucie, St. Lucie Co.	16 1700EST	0 0 3 -	Thunderstorm Wind Several mobile homes were damaged by high wind. Several trees were blown by the high wind.	
Winter Haven, Polk Co.	17 1300EST	0 0 3 -	Thunderstorm Wind Several airplanes were damaged by high wind. Several power lines were downed.	
Delray Beach, Palm Beach Co.	18 1430EST	0 0 3 -	Thunderstorm Wind and Lightning Trees were uprooted by high wind. Utility poles were broken and power lines were downed. Lightning started several house fires.	

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<b>FLORIDA</b>									
Melbourne, Brevard Co.	22	1250EST	0.5	10	0	0	3	-	Tornado (FO)
									Outdoor furniture was blown about by a tornado, with several pieces landing on a second floor balcony. Several parked cars were slightly moved by the tornado.
South and Central Florida	23				0	0			Tropical Storm Bob
									Tropical Storm Bob moved across south Florida from Fort Myers to just north of Palm Beach. The storm then turned north and moved northeast of Florida. The storm did minor damage to roofs and downed some trees mainly on the Florida west coast. Rainfall amounts ranged up to 13 inches at Naples. Tides 3 to 5 feet above normal isolated Sanibel Island and Marco Island and flooded streets in Naples and Everglades City. Several beaches suffered erosion from Port Charlotte to Marco Island.
Brooksville, Hernando Co.	24	1730EST	0.5	10	0	1	2	-	Tornado (FO)
									A small tornado tossed a 12 year old girl into the air and she suffered a minor bruise on her head. A utility shed was blown from one yard into another.
Tampa, Hillsborough Co.	25	1600EST	0.5	10	0	0	2	-	Tornado (FO)
									A small tornado, photographed by several people, destroyed a screened porch and caused minor damage to several roofs.
Sun City Center, Hillsborough Co.	26	1715EST			0	0	2	-	Thunderstorm Wind
									High wind destroyed several screen enclosures.
Bell, Gilchrist Co.	27	1400EST			0	0	-	-	Lightning
									Lightning killed four cows.
Bellair, Pinellas Co.	30	1209EST			0	0	4	-	Thunderstorm Wind
									High wind damaged several house roofs and a boathouse.
<b>9 GEORGIA</b>									
Seminole County	04	1428EST			0	0	0	0	Hail
									Hail up to 3/4 inch in diameter fell over Lake Seminole.
Brooks County	04	1630EST	9	20	0	0	5	?	Tornado (F1)
									A tornado touched down just south of highway 84 on the east side of Quitman. The tornado skipped along a 8.6 mile path to the northeast. One business was heavily damaged and two others were damaged moderately. One house was moderately damaged and many homes had minor damage. A communications tower was downed. There were no injuries.
Irwin County	04	1700EST			0	0	4	0	Wind
									Thunderstorm winds unroofed a house and destroyed a utility building near Wray. Debris from the roof hit and damaged a car.
Elbert County	11	1440EST			0	0	?	0	Wind, Hail
									Hail up to 3/4 inch in diameter fell in Elberton and thunderstorm winds downed a few trees in the city.
Appling County	11	1630EST			0	0	4	0	Wind
									A machine shed was destroyed by thunderstorm winds near Baxley.
Houston County	11	1715EST			0	0	2	0	Wind
									Trees were downed, blocking a road just north of Perry.
Bibb County	11	1835EST			0	0	3	0	Wind
									Thunderstorm winds downed trees and power lines in Macon.
Muscogee County	12	1510EST			0	0	3	0	Wind
									Thunderstorm winds uprooted trees and downed power lines in Columbus. One house and a car were damaged by the falling trees.
Franklin County	12	1800EST			0	0	5	0	Lightning
									Lightning caused a fire that destroyed a church between Lavonia and Carnesville.
Bartow County	12	2300EST			0	0	5	0	Wind
									Thunderstorm winds partially unroofed the Adairsville Elementary School's gymnasium. Trees were also uprooted in the area and several roads blocked by downed trees.
<b>GEORGIA</b>									
Columbia County	13	1725EST			0	0	4	0	Lightning
									Two homes near Martinez were damaged by lightning.
DeKalb County	14	1645EST			0	0	4	0	Wind
									Thunderstorm winds uprooted several trees in Dunwoody.
Miller County	14	1830EST			0	0	3	0	Wind
									Several trees were downed in scattered locations in the county. Minor wind damage occurred to store fronts in Colquitt.
Newton County	15	1500EST			0	0	3	0	Lightning
									Lightning caused a fire that damaged a house in Oxford.
Fulton County	16	1430EST			0	0	4	0	Flash Flood
									Heavy rain from a thunderstorm caused Proctor Creek in northwest Atlanta to flood. Twelve families were forced from their apartments along the creek. Extensive water damage occurred to the first floor apartments.
Meriwether County	16	1740EST			0	0	4	?	Wind, Hail
									Hail to golf ball size fell in Manchester. Thunderstorm winds downed trees and power lines over much of the city.
Jackson County	22	1430EST			0	0	5	0	Wind
									Damage was estimated to be over 100,000 dollars when thunderstorm winds destroyed two large chicken houses near Nicholson.
Richmond County	22	1750EST			0	0	4	0	Winds
									Thunderstorm winds downed more than 20 large trees on a golf course in Augusta.
Gwinnett County	22	1930EST			0	1	4	0	Lightning
									A man was hospitalized when the gate he was opening was struck by lightning in Norcross. A business and a house were damaged by lightning-caused fires.
Chattooga County	24	1000EST			0	0	4	0	Flash Flood
									Rainfall of 6.11 inches was measured at Menlo, with even heavier amounts reported in the area. Rapidly rising water trapped two people in their home and had to be rescued by boat south of Cloudland. Most of the rain fell in less than two hours. Several mudslides were reported and a few dirt roads were washed out.
Paulding County	26	2040EST					0	0	Funnel
									A funnel cloud was sighted over Dallas.
<b>10 IDAHO</b>									
Twin Falls and Jerome Counties	6	1930MST			0	0	5	0	Thunderstorm, Wind
									Strong, gusty winds associated with a line of thunderstorms downed many trees. Two windows of an automobile agency in Twin Falls were blown out. Near Shoshone Falls, a house in mid-construction was flattened.
Bingham County	12	1500MST			0	0	4	6	Hail
									Hail from strong thundershowers destroyed several thousand acres of potato and grain crops.
Twin Falls County	13	1830MST			0	0	3	5	Hail
									3000 acres of pea and grain crops were severely damaged by hail.
Twin Falls and Jerome Counties	14	1830 MST			0	0	4	5	Hail
									Hailstones as large as golf balls destroyed barley and wheat crops over a 15 mile strip of land. Some cattle were reported to have suffered welts from being hit by hail.
Butte County	30	evening			0	0	3	6	Hail
									A fast-moving hail, wind and rain storm struck the county. Surveys found that approximately 35,000 acres of crops were damaged or destroyed.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED* DAMAGE		CHARACTER OF STORM	
					KILLED	INJURED	PROPERTY	CROPS		
<b>11 ILLINOIS</b>										
Stephenson, Winnebago County	01	1400-1425CST			0	0	0	0	Funnel	
									A funnel cloud first appeared 5 miles east of Freeport, then moved northeast and finally dissipated 20 miles northwest of Rockford. The funnel aloft was seen by hundreds of people.	
Vermilion and Edgar Counties	02	1620-1700CST	30	1/2 mile	0	0	?	?	Hail	
									Hail one quarter to one inch in diameter fell in an area extending from 7 miles west of Danville (Vermilion County) southward to the vicinity of Chrisman (Edgar County). Most of the hail was about one-quarter inch, and did little damage.	
northern Piatt County	02	1730-1750CST	8	1/2 to 1 mile	0	0	0	6	Hail	
									Hail up to 1 1/2 inches in diameter completely destroyed 5,000 acres of corn and soybeans in an area 8 miles in length and up to 1 mile wide, extending from just northwest of Harris to just northeast of Mansfield. Crop damage was estimated at about 1.6 million dollars. Two to 4 inches of rain also fell in a 2-hour period.	
Peoria, Tazewell and Woodford Counties	02	1825-1915CST			0	0	3	0	Severe Thunderstorm	
									Fifty to 70 mph winds and hail up to 1 1/4 inches in diameter occurred at scattered locations. The first report was at Germantown Hills, 10 northeast of Peoria, with 60 mph winds and very small hail at 625 pm CST. Many tree limbs were blown down. At 630 pm CST, golf-ball sized hail occurred in northeast Peoria at Galena Road. Many automobiles were dented. Between 645 pm CST and 715 pm CST, 50 to 60 mph winds swept across much of Peoria, resulting in many tree limbs being blown down. Scattered power outages occurred in northern Tazewell County at the same time, due to trees falling across power lines.	
Pontiac, Livingston County	02	2145CST			0	0	0	0	Funnels	
									Two funnel clouds were observed by Pontiac police and by many residents of the area. The funnels each lasted about 3 minutes, and never touched down.	
Carrollton, Greene County	04	2045CST			0	0	3	?	Thunderstorm Winds	
									Thunderstorm winds, estimated at 50 mph, caused widespread tree damage across the town. Many roads in and around Carrollton were temporarily blocked by fallen trees.	
Peoria and Tazewell Counties	04	2045-2145CST			0	0	3	?	Thunderstorm Winds	
									Thunderstorm winds measured at 63 mph caused widespread minor damage to trees and telephone and electric utilities across the south half of Peoria County and north half of Tazewell County.	
Kane and DuPage Counties	04	2100-2140CST			0	0	2	0	Thunderstorm Winds	
									Thunderstorm winds with gusts to 55 mph caused widespread minor tree damage. A few power lines were pulled down by fallen trees in the Geneva area of Kane County.	
Evanston, Cook County	04	2156CST	1.5	230	0	0	5	0	Tornado (F1)	
									A weak tornado with peak winds estimated at 100 mph by Dr. T. Fujita of the University of Chicago, touched down in east-central Evanston and moved east-northeast into Lake Michigan. The tornado was embedded within a larger area of strong(downburst) winds which began at East Prairie and Greenleaf Streets in Skokie and extended east 2 1/2 miles to Lake Michigan. The downburst was rated F0, and its path was 7/10 to 1 mile in width at its widest point. The tornado itself first touched down near Boltwood Park and moved 1.5 miles east-northeast into Lake Michigan. Heaviest damage was east of Ridge Avenue, where many large trees were uprooted. Highest winds struck an area of solidly constructed homes, which, as a consequence of their strong construction, suffered only minor damage. The tornado damaged 12 sailboats at a boat dock as it passed into Lake Michigan as a waterspout.	
Effingham area, Effingham County	04	2200-2300CST			0	0	3	?	Thunderstorm Winds	
									Strong thunderstorm winds toppled many trees in the Effingham, St. Elmo, Lake Sara and Funkhouser areas of central Effingham County. Numerous power outages also resulted from falling trees which pulled down utility wires.	
Douglas, Coles and Edgar Counties	04	2250-2355CST	35	1 to 4 miles	0	0	0	?	6	Hail
									A huge east/west swath of damaging hail fell across southern Douglas, northern Coles and central Edgar Counties. The hail path was about 35 miles long and varied from 1 to 4 miles in width. Hail first was reported about 2250CST in extreme northwest Coles County, and from there the hail band extended east to the vicinity of Redmon in Edgar County. Twenty thousand acres of corn and soybeans were estimated to have suffered some damage, with extensive or total damage to an additional 6000 acres. Hail was mostly less than one inch in diameter, but in the Hindsboro area of southeast Douglas County, hail was measured at 2 3/4 inches. Many birds were killed in the area from Hindsboro to Oakland (northeast Coles County). Another hail swath occurred at the same time in the Newman area of east-central Douglas County.	

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					KILLED	INJURED	PROPERTY	CROPS	
<b>ILLINOIS</b>									
Hanover, Jo Daviess County	09	1845CST			0	0	?	?	Severe Thunderstorm
									Sixty mph thunderstorm winds and 1 inch hail resulted in minor tree damage in the community.
Dana, La Salle County	09	1930CST	1/2	165	0	8	5	0	Tornado (F2)
									A tornado touched down on the west edge of Dana, then moved 1/2 mile east through the heart of this community of 270 people. The tornado lifted at the east edge of the town. A grain elevator, service station and 19 houses and mobile homes were damaged or destroyed. Eight injuries, 6 of them minor, were reported, most from a mobile home park on the east side of town.
Grundys County	09	1930CST			0	0	4	3	Severe Thunderstorm
									Strong thunderstorm winds caused widespread minor damage to trees, crops, vehicles and buildings. Several unconfirmed funnels aloft were reported at various locations. Some corn fields were damaged.
Western Iroquois County	09	2045CST			0	0	4	3	Severe Thunderstorm
									Thunderstorm winds estimated at 65 mph damaged 4 houses in a rural area between Gilman and Danforth. Fallen trees also blocked several county highways. Some corn fields were damaged.
Saybrook, Mc Lean County	09	2050CST	?	?	0	0	?	?	Hail
									One inch hail occurred in a rural area 10 miles northwest of Champaign, near Saybrook. There were no reports of damage.
Wayne County	10	2348CST			0	0	4	?	Severe Thunderstorm
									Strong thunderstorm winds caused widespread minor damage across the county. Power lines came down at a few locations and a few rural structures were unroofed.
Rock Island County	14	1705-1800CST			0	0	4	0	Severe Thunderstorm
									Thunderstorm winds of 40 to 50 mph with gusts to 70 mph caused widespread damage to trees and power lines across central and northern portions of the county. Hail less than one half inch in diameter, accompanied the thunderstorm.
Mc Henry, Lake, and northern Cook Counties	14	1810-1920CST			0	0	4	?	Severe Thunderstorm
									Thunderstorm winds which gusted to 70 mph occurred at many locations across the 3-county area, as two waves of storms moved through. Hail occurred at many places, but caused little or no damage. Trees and branches were blown down in the Woodstock area (Mc Henry County), and at many rural locations in western Lake County. One inch hail also fell in the Barrington area (northwest Cook County). Rainfall at Mc Henry Dam totaled 5.25 inches, with some street flooding reported.
Mississippi Palisades State Park, Carroll County	14	2100-2330CST			0	0	5	0	Flash Flood, Severe Thunderstorm
									A series of thunderstorms which struck repeatedly across northern Carroll County resulted in a flash flood that devastated Mississippi Palisades State Park. Rain gauges with an 8-inch capacity overflowed from the accumulation of rainfall between 1700 CST and 2100 CST. Flash flooding occurred in the park between 2100 CST and 2330 CST. The park's roads, paved trailer sites and about 100 picnic tables were washed away. Forty groups of campers were evacuated just ahead of the rising waters, but their camping gear was lost. Other minor flooding was reported on roads in western and central Carroll County. Damaging thunderstorm winds unroofed a bank in Mount Carroll, resulting in water damage to the bank's interior.
Morgan and Sangamon Counties	14	2230-2350CST			0	0	4	?	Severe Thunderstorm, Funnels
									Thunderstorm winds estimated at 65 mph at a few locations swept across the counties, resulting in widespread damage to trees, power lines, roofing shingles and television antennas. Fifteen thousand residents of Springfield lost electric power for a period of time. Several funnel clouds aloft were also seen by police officials and many residents in the area 20 to 40 miles west of Springfield. A tornado (see separate report below) occurred in Springfield in association with the thunderstorm.
Springfield, Sangamon County	14	2344CST	short narrow		0	0	4	0	Tornado (F0)
									A tornado, witnessed by a night watchman, struck a mobile home dealership at 1801 S. Dirksen Parkway, destroying one mobile home.



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

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					KILLED	INJURED	PROPERTY	CROPS	
12 INDIANA									
2 N. Cayuga, Vermillion County	05	0050 EST			0	0	2	0	Thunderstorm Winds
Strong thunderstorm winds downed power lines near Cayuga.									
5 S. Lafayette, Tippecanoe County	05	0106 EST			0	0	2	0	Hail
Golf ball size hail was reported south of Lafayette.									
6 SW. Lizton, Hendricks County	05	0155 EST			0	0	3	0	Thunderstorm Winds
Large trees were downed by strong thunderstorm winds southwest of Lizton.									
2 N. Danville, Hendricks County	05	0200 EST			0	0	2	0	Thunderstorm Winds
Strong thunderstorm winds blew down trees north of Danville.									
2 NW. Logansport, Cass County	05	0200 EST			0	0	4	0	Thunderstorm Winds
Strong thunderstorm winds blew trees across Highway U.S. 35 northwest of Logansport. Also several large trees fell on trailers in Franck Park about 4 miles west of Logansport.									
Lizton, Hendricks County	05	0212 EST			0	0	2	0	Hail
Hail 3/4 inches in diameter fell in Lizton and 1 mile west of Lizton.									
Blue Lake, Whitley County	05	0215 EST			0	0	2	0	Hail
Hail 3/4 inches in diameter and 60 mph winds were reported at Blue Lake.									
Columbia City, Whitley County	05	0216 EST			0	0	3	0	Hail
Hail 3 inches in diameter damaged several autos just north of Columbia City.									
2 W. Fayette, Boone County	05	0220 EST			0	0	2	3	Hail
Hail 3/4 inches in diameter damaged crops just west of Fayette.									
Laotto, Noble County	05	0225 EST			0	0	2	0	Thunderstorm Winds
Several trees were uprooted by damaging winds just southwest of Laotto.									
Metea, Cass County	05	0230 EST			0	0	4	0	Thunderstorm Winds
Strong thunderstorm winds blew trees down in Metea. Some fell on house trailers. Others blocked S.R. 16.									
2 W. Garrett, DeKalb County	05	0245 EST			0	0	3	0	Thunderstorm Winds
Numerous trees and power lines were downed by thunderstorm winds. Also, hail 3/4 inches in diameter was reported west of Garrett.									
5 NE. Gas City, Grant County	05	0250 EST			0	0	2	0	Thunderstorm Winds
Damaging thunderstorm winds downed trees in eastern Grant County.									
Roanoke, Huntington County	05	0250 EST			0	0	0	3	Hail
Hail 3/4 inches in diameter produced some crop damage to some vegetable and soybean fields just southwest of Roanoke.									
Bluffton, Wells County	05	0310 EST			0	0	2	0	Thunderstorm Winds
Several streets in Bluffton were blocked by downed trees and power lines.									
Muncie, Delaware County	05	0400 EST			0	0	2	0	Thunderstorm Winds
Strong thunderstorm winds blew trees down on the east side of Muncie.									
Brook, Newton County	09	2225 EST			0	0	2	0	Thunderstorm Winds
Thunderstorm winds uprooted trees in Brook.									
Americus, Tippecanoe County	09	2258 EST			0	0	2	0	Thunderstorm Winds
Thunderstorm winds downed trees in Americus.									
Lafayette, Tippecanoe County	09	2258 EST			0	0	2	0	Thunderstorm Winds
Thunderstorm winds uprooted trees west of Lafayette.									
Walkerton, St. Joseph County	09	2300 EST			0	0	2	0	Thunderstorm Winds
Several trees were uprooted by thunderstorm winds. and power outages affected 750 residences.									
2 SW. South Bend, St. Joseph County	09	2305 EST			0	0	2	0	Thunderstorm Winds
Trees were uprooted and power outages were reported near S.R. 23 and U.S. 31.									
Lagrange, LaGrange County	09	2324 EST			0	0	2	0	Thunderstorm Winds
Several trees were uprooted in Lagrange by thunderstorm winds.									
Napanee, Elkhart County	09	2340 EST			0	0	4	0	Lightning
A mobile home was destroyed by lightning.									
1 N. Eddy, LaGrange County	09	2340 EST			0	0	3	0	Thunderstorm Winds
Approximately 20 trees were blown down across southern LaGrange County north of Eddy.									
Albion, Noble County	09	2350 EST			0	0	3	0	Thunderstorm Winds
Approximately 20 trees were blown down just south of Albion.									

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— INDIANA									
Shriner Lake, Whitley County	10	0006 EST	.3	50	0	0	4	0	Thunderstorm Winds
Downburst winds uprooted numerous trees and damaged 8 homes on the south side of Shriner Lake. Most damage was roof damage produced by trees falling on houses.									
Huntertown, Allen County	10	0010 EST	.9	200	0	0	5	0	Thunderstorm Winds
Downburst winds estimated at 70 to 80 mph uprooted or downed 75 trees and damaged 18 homes in Huntertown. Numerous automobiles were damaged by falling limbs and trees.									
Greencastle, Putnam County	10	0010 EST			0	0	3	0	Thunderstorm Winds
The roof was blown off a barn 3 miles west of Greencastle and trees were uprooted 5 miles south of Greencastle.									
Huntertown, Allen County	10	0020 EST	10	100-200	0	0	5	0	Thunderstorm Winds
A series of microbursts occurred across northern and eastern Allen County, uprooting and blowing over many trees and producing minor damage to a number of homes and outbuildings.									
5 W. Hartsville, Bartholomew County	10	0520 EST			0	0	4	4	Hail
Golf ball size hail caused severe crop damage and roof damage to a few homes in northeast Bartholomew County. Hail piled up to 6 inches deep in some areas. The swath was a mile wide and several miles in length.									
5 S. Greensburg, Decatur County	10	0550 EST			0	0	2	2	Hail
Golf ball size hail caused crop damage in extreme western Decatur County, south and southwest of Greensburg near State Road 46.									
Wheatfield, Jasper County	13	0554 EST			0	0	0	0	Funnel Cloud
Indiana State Police sighted a funnel cloud 3 miles west of Wheatfield and 2 miles south of Wheatfield.									
Greenfield, Hancock County	13	0835 EST			0	0	2	0	Thunderstorm Winds
Thunderstorm winds downed several trees near Greenfield.									
Fairland, Shelby County	13	0845 EST			0	0	2	0	Thunderstorm Winds
One large tree fell across the road at Fairland.									
Arlington/Carthage, Rush County	13	0920 EST			0	0	2	0	Thunderstorm Winds
Thunderstorm winds downed trees at Arlington and Carthage.									
Rays Crossing, Shelby County	13	0920 EST			0	0	3	0	Thunderstorm Winds
Several trees up to 4 feet in diameter were uprooted at Rays Crossing and a large camper was blown several hundred feet.									
Greenfield, Hancock County	13	0953 EST			0	0	2	0	Thunderstorm Winds
Thunderstorm winds downed trees in Greenfield.									
Westland, Hancock County	13	1005 EST			0	0	4	0	Thunderstorm Winds
A barn was destroyed and trees were blown down by strong thunderstorm winds in Westland.									
3 N. Rushville, Rush County	13	1010 EST			0	0	1	0	Thunderstorm Winds
Several large trees, 2 to 3 feet in diameter, were snapped or uprooted north of Rushville.									
Fowler, Benton County	14	2315 EST			0	0	2	0	Thunderstorm Winds
Large tree limbs and power lines were downed by strong thunderstorm winds in Fowler and several other locations in Benton County.									
Eaton, Delaware County	14	2330 EST			0	0	3	0	Thunderstorm Winds
A few large trees were uprooted near Eaton.									
Lafayette, Tippecanoe County	14	2340 EST			0	0	3	0	Thunderstorm Winds
A few trees were uprooted on Hitt Street in Lafayette. Some minor car damage occurred. Also several windows were blown out at East Tippecanoe Junior High School on the north side of Lafayette.									
Van Buren, Grant County	15	0140 EST			0	0	2	0	Thunderstorm Winds
Several trees were blown down in Van Buren by damaging thunderstorm winds.									
Williams, Lawrence County	21	1415 EST			0	0	2	0	Thunderstorm, Hail and Winds
Hail 3/4 inches in diameter fell in Williams. Also thunderstorm winds downed trees.									
Centerton/Waverly, Morgan County	21	1615 EST			0	0	2	0	Thunderstorm Winds
Strong thunderstorm winds downed trees in Centerton and Waverly.									
4 E. Mooresville, Morgan County	21	1625 EST			0	0	2	0	Thunderstorm Winds
Trees 12 to 16 inches in diameter were downed by thunderstorm winds east of Mooresville.									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

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					KILLED	INJURED	PROPERTY	CROPS	
<b>13 IOWA</b>									
Monona County	03	1955 CST			0	0	4	0	Thunderstorm Winds
			About 3 miles east of Castana a barn and several trees were blown down; and a metal gate was blown 100 yards, landing on a couple of pigs and killing them. High winds created a dust and sand storm there as well. At Ute, power lines were downed.						
North Central Iowa	03	2100-2200 CST			0	0	3	0	Thunderstorm Winds and Hail
			Pee to marble size hail and winds up to 50 MPH were reported in thunderstorms from Spirit Lake to Mason City.						
Bremer County	05	1540 CST	Short Narrow		0	0	0	0	Tornado (FO)
			A tornado was spotted 3 miles south of Tripoli. No damage resulted.						
Northeast Iowa	05	1540 CST			0	0	0	0	Funnel Clouds
			At least two funnels were sighted at this time, in Bremer and Fayette Counties.						
Fayette and Winneshiek Counties	09	1630 CST			0	0	3	3	Thunderstorm with Hail and Wind
			Golfball size hail was reported at Alpha. Southeast of Calmar, three dead oaks were toppled in the wind, and one of these landed on a Volkswagen Beetle and crushed the roof.						
Jackson County	13	0030-0040 CST			0	0	4	5	Thunderstorm Winds with Hail
			Large hail fell in a small area in the neighborhood of Springbrook and devastated many areas of corn, oats and beans. About 25 homes had damage to windows, roofs and sidings.						
Taylor County	14	1530-1600 CST			0	0	4	5	Thunderstorm Winds and Hail
			Hail as large as quarters and very strong winds in the northwest part of the county caused significant damage to crops, outbuildings and a barn. The rain was such a relief from the dry spell that the storm was more of a blessing than a curse for most.						
Clarke County	14	1535-1540 CST			0	0	3	5	Thunderstorm Winds
			An apparent downburst caused a great deal of damage in cornfields from southwest to just south of Osceola. The County Extension Agent described it as the worst damage he had ever seen done by wind to corn.						
Iowa County	14	1548 CST			0	0	0	0	Funnel Cloud
			A funnel cloud was reported to be 5 miles north of Millersburg.						
Iowa County	14	1628 CST			0	0	0	0	Funnel Cloud
			A funnel cloud was spotted at the Ladora Interchange on I-80.						
Johanson County	14	1635-1640 CST			0	0	4	0	Thunderstorm Winds
			Winds gusted up to 95 MPH ten miles west of the airport, where a couple of old oaks were knocked down, and also at the Iowa City Airport itself. A small plane was pushed by the wind into the terminal and over onto the lawn on the other side.						
Scott County	14	1820 CST			0	0	4	0	Thunderstorm Winds
			Several trees were blown down near Davenport. One of these fell on a house, and another on a car, and power lines were also downed as a result.						
Delaware County	24	1900 CST			0	0	4	0	Thunderstorm Winds
			A 10x20' outbuilding was destroyed, a grain bin and machine shed were damaged, and a window was broken at a farmhouse 5 miles east of Hopkinton.						
Des Moines County	30-	2300-01			0	0	4	0	Lightning
			Lightning strikes in a powerful electrical storm caused outages to several hundred homes in Burlington, and cut off power to the communications towers used by county and city police and firefighters. A couple of minor fires also resulted from the discharges.						
Clarke County	31	2130 CST			0	0	3	0	Lightning
			Lightning struck the antenna of a car travelling south on Interstate 35. The top of the antenna melted, the two front tires were ruined, the alternator was destroyed and a leak developed in the gas tank.						
<b>14 KANSAS</b>									
Carbondale, Osage County	04	1530CST			0	0	2	2	Hail
			A thunderstorm dropped golfball size hail in a small area just east of Carbondale.						
Kansas City, Wyandotte and Johnson Counties	04	1620-1720CST			0	0	4	4	Hail, Wind
			A severe thunderstorm crossed the Kansas City, Kansas Metropolitan area. Winds gusted to 40-60 mph in Edgerton at 1623CST, a gust of 60 mph was measured at Olathe's Industrial Airport at 1623CST, and gusts were estimated at 60 mph in west-central Wyandotte County at 1652CST. Inch diameter hailstones fell at Edwardsville at 1646CST and in Fairway about 1720CST.						
Mt. Vernon, Kingman County	04	1708CST			0	0	0	0	Hail
			A thunderstorm dropped 3/4 inch hail at Mt. Vernon for a brief period.						

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<b>— KANSAS</b>									
Cowley County	04	1830-2000CST			0	0	6	3	Wind, Hail
			A severe thunderstorm developed over the northwest corner of Cowley County and intensified as it moved southeast. Inch hail fell between Rock and Akron at 1835CST, and 2.5 inch hail dropped to the ground at Winfield Lake at 1839CST. The storm then made a 45 degree right turn and headed due south. Winds preceding the storm reached more than 80 mph and it continued to dump heavy rain and golfball size hail as it moved through Arkansas City.						
			Damage in excess of a million dollars resulted. Large trees and numerous power poles were blown down, roofs damaged, windows blown out, and a good deal of damage was done to buildings and vehicles all the way from Winfield through Arkansas City, and south to the Oklahoma border.						
			At Winfield, 1843-1855CST, winds estimated in excess of 70 mph at about 1843CST caused a concrete block wall on a large factory building to collapse. A third of the roof was also blown from the newspaper building.						
			At Arkansas City, 1910-1945CST, three-quarter inch hail fell at 1910CST. About 1928CST, winds in excess of 70 mph blew down a drive-in theatre screen and caused extensive roof damage to several buildings at Cowley County Community College. A Cessna 150 aircraft was flipped over and destroyed, and a mobile home was turned over and ripped apart. At least 150 vehicles suffered major hail damage.						
			A barn was blown down and several outbuildings damaged near the Oklahoma border south of Arkansas City about 1955CST.						
			One longtime resident called the storm, the worst straight-line wind damage ever.						
Lebo, Coffey County	14	1600CST			0	0	4	0	Wind
			Thunderstorm winds in excess of 60 mph destroyed a mobile home near Lebo. Debris from the home was found more than 200 feet from its original location. Four trees were knocked down at a nearby home, and some other minor damage occurred.						
Phillips, Rooks and Osborne Counties	14	1740-1900CST			0	0	5	5	Hail, Wind
			A severe thunderstorm developed southeast of Phillipsburg and moved southeast toward Osborne. Golfball size hail fell at Kirwin Reservoir at 1746CST and 8 miles north of Stockton at 1755CST. Sixty to 70 mph winds hit Alton at 1815CST and winds near 60 mph struck the area between Alton and Osborne around 1835CST.						
Melvorn Lake, Osage County	14	1925CST			0	0	3	0	Wind
			Thunderstorm wind gusts reached 70 mph at Melvorn Lake. No major damage resulted.						
Sherman County	18	1930-2015CST			0	0	6	6	Hail, Wind
			A violent thunderstorm crossed southern Sherman County and caused extensive damage. The storm began at the Colorado border south of Kanorado and moved east, cutting a swath 5 miles wide and 15 long. Trees and power lines were downed, a 36 foot trailer was blown across the highway south of Goodland, and a number of rural homesteads were damaged. Hail from golfball to baseball size fell south of Ruleton from 1937-1948CST, and 3/4 inch fell at the Goodland Airport at 2000CST. A peak wind gust of 59 mph was clocked at the Goodland Airport at 2003CST, and an 87 mph gust was logged at KLOE Radio south of Goodland at 2008CST.						
Dodge City, Ford County	19	2235CST			0	0	5	0	Wind
			A severe thunderstorm formed over Dodge City and produced winds measured at 68 mph at the Dodge City Airport. Two small aircraft were destroyed at the airport.						
Argonia, Sumner County	20	1747CST			0	0	3	0	Wind
			Thunderstorm winds hit Argonia and damaged a pickup topper and a small shed. A power pole was blown down and minor roof damage was done to several buildings.						
Kirwin Reservoir, Phillips County	21	0030CST			0	0	4	4	Hail
			Hail the size of golfballs fell in the area around Kirwin Reservoir.						
Towanda and El Dorado, Butler County	21	1745-1750CST			0	1	4	0	Wind
			A southeast-moving cluster of severe thunderstorms produced strong downburst winds that caused major damage to a home just west of Towanda at 1745CST, and blew over three camping trailers at El Dorado Lake State Park about 1750CST. A woman sustained injuries to both legs when one of the trailers struck her.						
Cedar Point, Chase County	24	1630CST	Short Narrow		0	0	3	0	Tornado (FO)
			A weak tornado dipped down briefly 9 miles south of Cedar Point. The twister lifted the roof from a large metal equipment shed and deposited it 1.5 miles northeast.						
Easton, Leavenworth County	24	1900CST			0	0	4	0	Lightning
			Lightning struck 2 oil tanks at a drilling site near Easton. The resulting fire took 3 volunteer fire departments more than 2 hours to extinguish.						

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	

## KANSAS

Winfield, Cowley County	24 1930CST	0	0	2	0	Wind	Thunderstorm winds estimated at 60-70 mph caused minor damage just northwest of Winfield.		
Seward and Meade Counties	29 1730CST	0	0	4	0	Wind	Thunderstorm wind gusts estimated at 70 mph hit Kismet and Plains. Minor roof and tree damage resulted.		
Barton, Ellsworth, Lincoln, Saline, Ottawa, Clay and Washington Counties	30 1645-2100CST	0	0	4	0	Hail, Wind	A cluster of severe thunderstorms formed near Great Bend and moved northeast toward Washington and Clay Center. The storms produced hail and strong wind gusts along their path. Wind gusts estimated at 60 mph knocked down power lines near Albert at 1645CST; they struck 6 miles east of Ellsworth at 1738CST, 7 south of Clay Center at 1927CST, in Palmer at 2018CST, and 10 southwest of Washington at 2036CST. Hailstones 3/4 inch in diameter fell in Minneapolis at 1842CST.		
Liberal, Seward County	30 1830CST	0	0	4	0	Wind	Thunderstorm winds overturned and ripped apart a mobile home 11 miles north of Liberal. A nearby, natural gas compressor station measured a peak wind speed of 69 mph when the damage was done.		
Riley and Ft. Riley, Riley County	30 1845CST	0	0	3	0	Wind	Thunderstorm winds estimated about 60 mph knocked down power lines at Riley, and rolled over some portable generators at Ft. Riley.		
St. Francis, Cheyenne County	31 0130-0230CST	0	0	5	6	Hail, Wind	A strong thunderstorm dumped large hail and produced damaging winds across southern Cheyenne County. The storm tracked along a 5 mile wide path from the Colorado border eastward to south of Bird City. Power lines and trees were downed, and some farm homes and buildings were damaged. Golfball size hail fell 10 miles west of St. Francis at 0150CST, and 3/4 inch hail fell at St. Francis at 0200CST.		

### SPECIAL HAIL SUMMARY

Kansas-Oklahoma Hail Loss Service reports indicate hail was especially damaging to crops in the listed counties on the following dates:

- 01 Stanton
- 02 Sheridan, Thomas
- 09 Thomas
- 19 Seward
- 29 Gray, Haskell

## 15 KENTUCKY

Mercer County	03 1800EST	0	0	1	1	Hail	Hail, 3/4 - 1 inch in diameter, was reported during a severe thunderstorm in Harrodsburg, accompanied by 40 mph wind gusts.		
Caldwell County	05 1530CST	0	0	3	1	Flash Flooding	Strong thunderstorms with very heavy rain caused flash flooding in Princeton. Two to three feet of water was reported running in the city streets of Princeton by the Kentucky State Police and the Sheriff's Office of Caldwell County. Several cars were stranded in streets and underpasses, where water rose to 6 feet in depth.		
Fulton County	05 1700CST	0	0	2	1	Lowland Flooding	Lowland flooding was reported in Fulton County. The city police of Hickman reported many fields underwater. Highways 94 and 239 had water over the roadways. Police recommended no travel in the county due to heavy rainfall and ponding of water on roads.		
Morgan County	10 1510EST	0	0	3	0	Strong Thunderstorm Winds	Trees reported down across roads throughout Morgan County.		
Wolfe County	10 1530EST	0	0	3	0	Strong Thunderstorm Winds	Wolfe County Power Company reported trees down and power outages.		

## KENTUCKY

Breathitt County	10 1530 - 1630EST	0	0	4	0	Severe Thunderstorm	A porch was blown off a mobile home near Athol, 12 miles west of Jackson. Numerous trees were blown down in Jackson. An automobile accident in torrential rains caused 2 fatalities. A funeral home in Jackson burned after being struck by lightning. Small hail was reported.		
Magoffin County	10 1630EST	0	0	3	0	Severe Thunderstorm	Numerous trees were blown down, with several blocking roadways. One tree smashed a mobile home. Lightning struck a mobile home.		
Perry County	10 1645EST	0	0	3	0	Strong Thunderstorm	Kentucky State Police reported trees down in the north part of Perry County.		
Floyd County	10 1645EST	0	0	3	0	Thunderstorm Winds/Urban Flooding	Kentucky State Police reported trees down in county. Minor street flooding was reported in Prestonburg.		
Leslie County	10 1700EST	0	0	3	0	Thunderstorm Winds	Road department reported trees down across roadways. Power lines downed.		
Clay County	10 1730EST	0	0	2	0	Thunderstorm Winds	Several trees down and pencil eraser size hail reported in Manchester.		
Bell County	10 1800-1900EST	0	0	4	0	Thunderstorm Winds/Urban Flooding	Downed trees and street flooding were reported in the city of Pineville. In the city of Middlesboro, numerous downed trees, power outages, and small hail were reported. Several cars were damaged by falling trees, streets flooded, and two automobile accidents occurred on Cumberland Mountain during a torrential rain. One of the accidents caused 3 injuries.		
Graves County	22 1430CST	0	0	3	0	Urban Flooding	Torrential rain caused most low lying city streets in Mayfield to become flooded. Some streets became blocked by stalled cars and floating debris. Employees were evacuated from county clerks office as water backed up from sewer drains.		

## 16 LOUISIANA

Lafayette Parish	02 1630CST	0	0	?	?	Severe Thunderstorm - Wind	Straight-line winds from a severe thunderstorm knocked down several trees; in addition, the wind blew a large awning into a telephone pole, causing it to fall on top of a home in Carencro.		
Lake Pontchartrain, St. Tammany Parish	02 1715CST	0	0	?	0	Severe Thunderstorm - Hail	Police closed the causeway bridge during a severe thunderstorm which produced golf ball sized hail.		
Webster, Claiborne Lincoln and Union Parishes	03 0010CST	0	0	?	?	Severe Thunderstorm - Wind	A fast-moving line of severe thunderstorms knocked down numerous trees in northern Webster, northwest Claiborne, Lincoln and Union Parishes between 0010-0100CST.		
Lafourche Parish	10 1630CST	0	0	?	?	Severe Thunderstorm - Wind	A severe thunderstorm uprooted a large tree in Thibodaux.		
Grant Parish	11 Afternoon	0	1	?	?	Thunderstorm - Lightning	A 30 year old man was slightly injured when lightning struck a tree that he had taken shelter under.		

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM	
					KILLED	INJURED	PROPERTY	CROPS		
<b>— LOUISIANA</b>										
St. Landry Parish	16	1740CST			0	0	4	?	Severe Thunderstorm - Wind	
			Severe thunderstorm winds severely damaged a home's roof in Eunice and uprooted several trees in Opelousas. One tree fell on top of a trailer; it almost cut the mobile home in half.							
St. Tammany Parish	18	1135CST			0	0	?	?	Thunderstorm - Heavy Rain	
			2.67 inches of rain fell in one hour in Slidell, flooding many streets.							
East Baton Rouge Parish	20	0925CST			0	0	3	?	Severe Thunderstorm - Wind	
			Severe thunderstorm winds blew down a tree on to a home in Baton Rouge.							
St. Bernard Parish	23	1510CST			0	0	?	?	Thunderstorm - Heavy Rain	
			3.20 inches of rain fell in one hour in Chalmette, flooding many streets.							
Orleans Parish	26	1300CST			1	0	?	?	Thunderstorm - Lightning	
			A 30 year old man was killed by lightning when he took shelter under a tree.							
St. Tammany and St. John the Baptist Parishes	27	1400CST			0	0	?	?	Thunderstorm - Heavy Rain	
			2.45 inches of rain fell in 45 minutes in Slidell, flooding many streets. An hour long downpour in St. John the Baptist Parish flooded many roads.							
Evangeline Parish	27	1425CST			0	0	?	?	Severe Thunderstorm - Winds	
			Straight-line winds from severe thunderstorms blew down trees and utility poles in Pine Prairie and Ville Platte.							
Jefferson Parish	27	1930CST			0	0	?	?	Thunderstorm - Heavy Rain	
			3.65 inches fell in one hour in Harvey, flooding many streets.							
Calcasieu Parish	27	1945CST			0	0	?	?	Severe Thunderstorm - Wind	
			Straight-line winds from severe thunderstorms damaged a home and power lines in Starks. Power lines were blown down in Lake Charles at 2000CST.							
<b>17 MAINE</b>										
Lexington (Somerset County)	6	2015EST			0	4	4	0	Lightning	
			A four piece country western band was struck by a lightning bolt that hit a brand new dance hall where they were playing. The bolt travelled through the instruments, burning three and came out the microphone, felling the lead singer. Her heart stopped, but quick action by a patron, who administered CPR, saved her. The dance hall received little damage.							
Wilton (Franklin County)	7	1400EST			0	0	2	0	Severe Thunderstorm	
			A severe thunderstorm rumbled through Wilton, dropping hail the size of hen eggs (2 inch diameter). Fortunately, there was little damage.							
Extreme Southern Maine (York County)	10	1400EST			0	0	4	0	Lightning	
			A line of thunderstorms swept across York County Wednesday afternoon, with small hail, gusty winds and lightning causing power outages and a fire. In Waterboro, at 3:30PM EDT, lightning struck a vacant and dilapidated wooden tannery and started the fire. Damage to the New England Hide Company building was confined to a 20 foot section. Meanwhile, half inch hail fell in Alfred, Lyman and Waterboro. Lightning and gusty winds caused scattered power outages around the county, with the Buxton area hardest hit with about 1700 customers without power for an hour.							
St. John Valley (Aroostook County)	22	1430EST			0	0	5	0	Severe Thunderstorm	
			Severe thunderstorms swept across northern Aroostook County, causing widespread damage. The strong winds uprooted trees or stripped them of their limbs which in turn took down utility lines. There were 1000 residents from Frenchville to Grand Isle without power for over 3 hours. Frenchville appears to be the hardest hit by the storm, where the winds overturned a vacation mobile home, blew the roof off an outbuilding, and took down ten trees at one residence.							

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM	
					KILLED	INJURED	PROPERTY	CROPS		
<b>— MAINE</b>										
Southern Maine (York, Cumberland, Hancock, Androscoggin, Waldo, Somerset Counties)	26	1300EST			0	1	5	0	Thunderstorms	
			A cold front produced strong thunderstorms that tore down several trees and many large tree limbs which in turn downed power lines. Power outages were scattered throughout the aforementioned counties for upwards to several hours. At Lake Auburn, Androscoggin County, a tree fell on a car, causing \$5,000 damage. The Portland Coast Guard, Cumberland County, reported several boats ripped loose from their Casco Bay moorings and wound up on the beaches. The only injury reported was in Fairfield, Somerset County, when a sudden strong wind gust snapped off a 20 foot long and 8 inch diameter limb. The limb fell 30 feet to the ground, striking a surveyor on the head.							
<b>18 MARYLAND and D.C.</b>										
Garrett County	08	1600-2400EST			0	0	5	0	Flash Flood, Lightning	
			More than four inches (4.04) of rain fell at Oakland, closing roads overnight. Flooding occurred in Crellin, Pleasant Valley, and the Herrington Manor Road area. Most roads were reopened by morning as water levels began to recede. Lightning disrupted radio and television service. Communications of Garrett Central Alarm were inoperative after 9 PM EST when lightning struck the radio tower. Cable television service to the Mountain Lake Park area remained out of service through the next morning.							
Garrett County	10	0500-1100EST			0	0	4	0	Flash Flood	
			More than two inches of rain fell between 600 and 830 AM EST, closing 10 roads in the area. Two of these roads, both in the Fiendsville area, remained closed the next evening. At least 30 basements were reported flooded.							
Anne Arundel, Baltimore, and Harford Counties; and Baltimore City	10	1000-1230EST			0	2	5	0	Thunderstorm Wind and Lightning	
			Thunderstorms producing winds gusting as high as 60 mph felled scores of trees. 34,000 Baltimore Gas and Electric customers lost power. Lightning struck a 20 year-old construction worker in Phoenix and killed a dog that a 63 year-old woman was walking in Jarrettsville. Both individuals recovered.							
Baltimore and Harford Counties	15	1500-2100EST			0	1	5	0	Thunderstorms	
			A series of thunderstorms, such as the one which generated 63 mph wind gusts at the Edgewood Arsenal between 340 and 415 PM EST, downed trees and power lines, and damaged houses. 50 houses in the Chase section of eastern Baltimore County suffered minor damage consisting of broken windows, torn lawns and scraped aluminum siding. Several trees fell on houses and blocked roads. A woman was treated for broken ribs when a tree collapsed a portion of her house. Baltimore Gas and Electric Company reported 26,500 customers without electricity at the height of the storm.							
Anne Arundel, Baltimore, Harford, Montgomery, and Prince Georges Counties; Baltimore City; and the District of Columbia	25	1300-1640EST			4	6	6	0	Thunderstorms	
			Remnants of Hurricane Bob spread northward as a band of squalls. Damaging winds were widespread and measured as high as 62 mph at Martin Airport. A 35 year-old Montgomery County woman and her 5 year-old daughter died on rain slick streets following a collision. A 44 year-old District of Columbia resident died in an accident by apparently driving too fast on the wet streets. A 22 year-old Laurel resident skidded off on a Prince Georges County road and died after striking a truck head on. Winds toppled a tobacco barn in Davidsonville and blew apart a barn in Abingdon, knocking over a cement block wall and lifting the roof 30 feet in the air. An injured cow was destroyed. A pontoon equipped Cessna 210 was overturned in the Washington Channel near Hains Point. Baltimore Gas and Electric reported 170,000 customers without power as utility poles and trees were downed by the wind.							
Washington County	26	1630EST			1	0	0	0	Lightning	
			A 22 year-old Hagerstown man was struck and killed by lightning when he sought shelter beneath a tree during a thunderstorm.							
Anne Arundel County	31	1530EST			0	0	5	0	Thunderstorm Wind	
			A downburst estimated at 60 mph damaged 18 houses, 9 of them severely, and destroyed several garages in the 8300 block of Sail Court, Pasadena. Flying debris damaged several houses, but some siding was ripped off by the force of the wind. Swing sets, barbecue equipment, and outside structures were bent or strewn about. At least one large tree was uprooted. There were scattered power failures.							

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

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					KILLED	INJURED	PROPERTY	CROPS	
<b>19 MASSACHUSETTS</b>									
Eastern Portion	03	Early afternoon- Early evening			0	0	4	0	Lightning and Heavy Rain
		Scattered brief but heavy thunderstorms moved through parts of the area. Lightning struck homes in Milton, Weymouth, and Duxbury; and an electrical power station in Braintree, knocking out power to six thousand homes in Braintree. No damage estimate was available from the home struck in Weymouth, but damage was estimated at about \$25,000 at the home in Milton after a lightning-caused fire. Other minor problems were caused by lightning in Lynn, Rockland, Stoughton and Abington. Very heavy rainfall measured 1.0 inch in 15 minutes at the Blue Hill Observatory in Milton and 1.0 inch in 30 minutes at Hingham, resulting in street flooding.							
Berkshire County	03	Early evening			0	0	3	0	Thunderstorm Winds, Hail and Lightning
		Sections of Pittsfield, Stockbridge, Lennox, Lee and Becket were hit by a heavy thunderstorm. A tree fell onto a house and struck a truck parked in a driveway in Lennox Dale, causing an undetermined amount of damage. Three quarter inch hail was reported in Lennox at 1830EST, and wind gusts to 50 MPH were reported from the town of Becket at 1835EST. Scattered power outages were reported throughout the area.							
Agawam, Hampden County	06	1630EST			0	0	0	0	Funnel Cloud
		A funnel cloud was reported accompanying thunderstorms in the area.							
Western and Central Portion; and Norfolk and Middlesex Counties	10	Early morning			0	0	4	0	Lightning
		Heavy thunderstorms moving through the area resulted in many lightning strikes and scattered power outages. Lightning struck a garage in Monson causing \$6,000 damage. Up to 8,000 electric customers lost power in central Massachusetts.							
Central and Eastern Portion	10	Mid-late afternoon			0	0	4	0	Thunderstorm Winds, Lightning and Hail
		Wind gusts to 50 MPH were reported in West Brookfield. One inch hail was reported from Belchertown. A barn was destroyed by a fire started by lightning in Granby, resulting in about \$10,000 damage. Up to 8,000 homes lost electric power in the Worcester area. Several thousand customers lost electric service in the Burlington and Woburn area. Several homes were struck by lightning in the Dedham and Norwood area, and flooding was reported on Route 1 in that vicinity. A peak wind gust to 75 MPH was recorded from the west at the Blue Hill Observatory in Milton, where tree limbs were downed.							
Franklin, Hampden and Worcester Counties	16	Evening			0	0	0	3	Thunderstorm Winds and Heavy Rain
		An apple orchard suffered wind damage in Shelburne, but no dollar estimate was available. Scattered power outages and street flooding were reported in the area. Blackouts to about 1,000 Greater Springfield homes occurred as a result of the storm. Fallen trees and tree limbs were reported in Hardwick.							
Central and Eastern Portion	26	Morning & Afternoon			0	0	0	0	Gusty Winds
		Gusty winds accompanying the remnants of Hurricane BOB moved across the area, knocking down some tree limbs and a few trees, which resulted in scattered power outages. A southerly gust of 58 MPH occurred at the Blue Hill Observatory in Milton. Scattered thunderstorms accompanied the windy weather.							
Hampden, Hampshire, and Worcester Counties	31	1200EST- 2400EST			0	0	?	0	Heavy Rain, and Flooding
		Rain which began around noontime came down heavily by late afternoon and during the evening hours. Amounts of rainfall totaling between 3.0 and 3.9 inches were recorded along a rather narrow, west to east axis from around Springfield to Worcester. The most serious flooding problems began in Worcester and vicinity by late evening. Two and one half inches of rain fell at Worcester in a three hour period. Many streets were flooded and some became impassable as several feet of water flooded low-lying areas. There were motorists who became stranded in the flooded streets and had to be rescued. Firefighters rescued two people from their car on Exchange St. by swimming through neck deep water. Rainfall totals were around 3.0 inches in the Springfield area by the time the rain ended in the late evening, and 3.9 inches at Worcester. Flooding continued and spread east to parts of eastern MA on Thursday morning, August 1st.							
<b>20 MICHIGAN</b>									
St. Clair Co.	02	1230- 1300EST					1	3	Lightning
		A man was injured from a lightning strike while he was leaning against a metal window frame in Kimball Township. Lightning also started a minor house fire in Marysville.							
Dearborn Heights, Wayne Co.	02	1920EST			2	2			Lightning
		Four teenage boys took shelter under a tree and were struck by lightning. Two died and two were injured.							
Ishpeming, Negaunee, and Palmer area; Marquette Co.	04	1650- 1725EST					1		Hail, Lightning
		A man who took shelter under a tree on a picnic ground was injured by lightning. 3/4 inch to 1 3/4 inch in diameter hailstones fell.							
<b>MICHIGAN</b>									
Leelanau, Benzie, Manistee, and Grand Traverse Counties	04	2130EST							Thunderstorms
		Reports by county and time (EST) were as follows:  Leelanau Co. 2130-2145. Funnel cloud observed 8 miles east of Empire. Benzie Co. 2130-2215. Funnel clouds observed 7 miles south of Elberta and at Lake Ann. Trees down and property damaged at Frankfort and Lake Ann. Manistee Co. 2130-2200. Sailboat damaged by lightning just offshore in Lake Michigan. Grand Traverse Co. 2200-2245. Funnel cloud observed at Interlochen. Wind damage in Traverse City.							
Southwest Lower Michigan	05	0000- 0130EST					4		Thunderstorms
		Reports by county and time (EST) were as follows:  Ottawa Co. 0000-0030. 2" hail at Jenison, 3/4" at Grand Haven. Trees and power lines down. Allegan Co. 0000-0115. 1 1/2" hail at Fennville. Wind damage at Saugatuck. Trees and power lines down. Kent Co. 0000-0115. 1 3/4" hail at Grand Rapids, 3/4" at Rockford. Trees and power lines down. Van Buren Co. 0000-0115. 3/4" hail at Paw Paw. Berrien Co. 0015-0115. 3/4" hail 1 1/2 miles east of Benton Harbor. Gusts to 65 mph at St. Joseph Coast Guard. Trees and power lines down. Barry Co. 0045-0130. 3/4" hail at Gun Lake. Widespread wind damage.							
Southeast Michigan	05	0200- 0400EST					4		Thunderstorms
		Reports by county and time (EST) were as follows:  Eaton Co. 0200-0230. Wind damage at Olivet. Shiawassee Co. 0200-0245. Wind damage at Owosso. Jackson Co. 0215-0245. Trees and power lines down, mostly in southern portion. Hillsdale Co. 0215-0300. Wind damage at Montgomery and Reading. Barn set afire by lightning near Waldron. Genesee Co. 0230-0330. 1 3/4" hail at Flint. Lapeer Co. 0315-0400. Wind damage at Lapeer. Oakland Co. 0330-0415. Widespread wind damage. Trees and power lines down. Localized heavier damage to houses in Orchard Lake and Pontiac. Macomb Co. 0330-0430. Trees and power lines down. Localized heavier wind damage northwest of Utica. Washtenaw Co. 0345-0430. Trees and power lines down, mostly in northern sections. Wayne Co. 0400-0430. Minor wind damage.							
4 NW of Saginaw, Saginaw County	05	1230EST					8	4	Thunderstorms
		8 persons were injured, 3 of them seriously, when a wind gust collapsed a festival tent. Much equipment and food was destroyed.							
Ann Arbor, Washtenaw County	05	1335EST					1		Lightning
		A man died of injuries received from a lightning strike on a golf course.							
Grass Lake, Jackson County	05	1430EST					1		Lightning
		A woman was seriously injured by lightning on a golf course.							
5 E of Blissfield, Lenawee County	05	1450EST							Hail
		1 3/4 inch hailstones fell.							
Southeast Michigan	08- 09	0000- 0215EST					4	C	Thunderstorms
		Reports by county and time (EST) were as follows:  Shiawassee Co. 0000-0030. Minor power outage. Ingham Co. 0000-0030. Minor power outage. Livingston Co. 0015-0045. Minor power outage. Genesee Co. 0030-0100. Power outage southern portion. Oakland Co. 0030-0130. Widespread wind damage and power outage. 3 houses set afire by lightning. Highway flooded between Pontiac and Troy. Macomb Co. 0115-0200. Widespread wind damage and power outage. St. Clair Co. 0130-0215. Hail damage to buildings and crops.							

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

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					KILLED	INJURED	PROPERTY	CROPS	PROPERTY	CROPS		
<b>— MICHIGAN</b>												
Extreme Southern Michigan	09-10	2145-0100EST						5			Thunderstorms	
Reports by county and time (EST) were as follows: <u>Kalamazoo Co.</u> 2145-2230. 3/4" hail and gusts to 67 mph at Kalamazoo. Trees and power lines down. Lightning fires. <u>Calhoun Co.</u> 2145-2245. 3/4" hail at Marshall. Trees and power lines down. 3 houses set afire by lightning in Battle Creek. <u>Jackson Co.</u> 2200-2245. 1 1/2" hail at Springport. Power lines down. <u>Washtenaw Co.</u> 2220-2315. 3/4" hail at Saline. House set afire by lightning in Ann Arbor. <u>Branch Co.</u> 2230-2330. Trees and power lines down. Lightning fires in Coldwater and Quincy. <u>St. Joseph Co.</u> 2300-2345. Trees uprooted 3-6 miles N of Sturgis. Lightning fires in White Pigeon. <u>Cass Co.</u> 2315-2400. Limbs down and lightning fires in Dowagiac. <u>Berrien Co.</u> 2315-2400. 2 lightning fires. Power lines down. <u>Lenawee Co.</u> 0000-0100. Trees and power lines down. Several lightning fires. <u>Monroe Co.</u> 0015-0100. Trees and power lines down.												
Tustin, Osceola County	13	1945EST						1			Lightning	
A man standing on a porch was seriously injured by lightning.												
Adrian, Fairfield, and Ogden Center, Lenawee County	14	0205-0230EST						4			Lightning	
2 barns and a house were set afire by lightning.												
Southwest Lower Michigan	14	0300-0445EST						4			Thunderstorms	
Reports by county and time (EST) were as follows: <u>Kalamazoo Co.</u> 0300-0345. Lightning destroyed house and damaged apartment building. <u>Barry Co.</u> 0310-0330. Lightning fire destroyed barn at Prairieville. <u>Calhoun Co.</u> 0330-0430. Trees and power lines down. <u>Branch Co.</u> 0400-0445. Trees and power lines down.												
Extreme Southeast Michigan	14	0520-0615EST						4			Thunderstorms	
Reports by county and time (EST) were as follows: <u>Wayne Co.</u> 0529-0615. Gusts to 69mph at Detroit City Airport damaged 2 parked aircraft. Widespread light wind damage. Narrow path of heavier damage in northeast Livonia and north Redford Twp. does not appear tornadic. House in Canton Twp. damaged by lightning. <u>Monroe Co.</u> 0530-0615. Trees and power lines down.												
Southeast Michigan	15	0420-0615EST						4			Thunderstorms	
Reports by county and time (EST) were as follows: <u>Ingham Co.</u> 0420-0515. See tornado listed below. <u>Livingston Co.</u> 0445-0545. Trees and power lines down. <u>Oakland Co.</u> 0500-0615. 3 fires set by lightning. Power outage.												
East Lansing to 3 NNE Webberville, Ingham County	15	0429EST	15.6	200	0	0	0	5			Tornado (F2)	
A tornado produced a path of tree damage extending about 2 miles ESE from the NE corner of East Lansing. Heavier damage then extended from 5 miles NW of Williamston to 3 miles NE of Williamston. The final portion of the path was from 4 miles NW of Webberville to 3 miles NNE of Webberville. 18 buildings were damaged. 3 barns were destroyed; one was twisted 90°. Small aircraft were also destroyed. A swirling path was visible through cropland.												
Greenville, Montcalm County	15	0500EST (Estimated)						1			Lightning	
A night watchman was found dead on a factory floor several hours after a lightning strike.												
East Lansing, Ingham County	15	0745EST						4			Lightning	
4 young men on a golf course were injured by lightning, 2 of them seriously.												
<b>21 MINNESOTA</b>												
Koochiching County	3	1623CST						0	0	0	0	Hail
One-inch hail reported 15 miles southwest of International Falls.												
Itasca County	3	1715CST						0	0	0	0	Hail
Golf ball size hail was reported 10 miles south of Deer River.												
<b>— MINNESOTA</b>												
Crow Wing County	3	1747CST						0	0	0	0	Hail
Golf ball size hail was reported in the northeast portion of Brainerd.												
Rock County	3	1800-1830CST						0	0	0	?	Hail
Hail up to the size of golf balls did extensive damage to crops in central Rock County.												
Carlton County	3	1800-1830CST						1	0	?	0	Lightning
An elderly man was killed by lightning in a farm house near Lake Kettle. The lightning bounced off a tree and went through the side of the house.												
Murray, Nobles, and Jackson Counties	3	1800-1900CST						0	0	?	6	Hail, Wind
A very strong thunderstorm with up to 3/4 inch hail and 63 mph wind raked a large area 15 miles long from just southwest of Fulda in Murray County through northeast Nobles County into extreme northwest Jackson County. Many of the crops in this area were destroyed.												
Crow Wing and Aitkin Counties	3	1805-1825CST	5	100	0	0	0	5	?	?	?	Tornado (F0)
A tornado touched down between Cuyuna and Deerwood in Crow Wing County and moved east into Aitkin County near Aitkin. Several barns and a house were damaged and numerous trees uprooted.												
Crow Wing County	3	1819CST	0.3	25	0	0	0	0	0	0	0	Tornado (F0)
A tornado touched down briefly 5 miles north of Brainerd.												
Crow Wing County	3	1820CST						0	0	0	0	Funnel
County sheriff reported a funnel cloud at the northwest corner of Mille Lacs Lake.												
Crow Wing, Mille Lacs and Kanabec Counties	3	1830-1930CST	30	200	0	0	0	4	?	?	?	Tornado (F2)
A tornado developed just west of Garrison in Crow Wing County, moved southeast at nearly 30 mph across Mille Lacs Lake, and went ashore again between Wahkon and Isle on the southeast shore of the Lake. The tornado continued its southeast movement to Warman in Kanabec County before receding into the thunderstorm. The tornado was on the surface continuously for almost an hour. Several roofs were damaged and trees uprooted in Garrison. Several farm buildings were damaged, numerous trees uprooted and a resort was damaged on the southeast side of Mille Lacs and in Warman.												
Watwan County	3	1948CST						0	0	?	?	Hail
Marble size hail was reported in St. James. Crop damage of 40 to 60 percent was reported in an area south of St. James to just south of Butterfield. One-inch hail was reported at several farms.												
Mille Lacs County	3	1952CST						0	0	0	0	Funnels
County sheriff reported two funnels northwest of Onamia.												
Hennepin County	3	2013CST						0	0	0	0	Hail
Golf ball size hail was reported in east Bloomington.												
Waseca County	3	2038CST						0	0	0	0	Hail
One-inch hail was reported at Waseca.												
Red Lake County	3	2130CST						0	0	0	0	Hail
The sheriff's office reported marble size hail at Lake Falls.												
Southern Wabasha and Olmsted Counties	6	1330CST						0	0	0	5	Wind
A thunderstorm moved from north to south, from Elgin south along Highway 42 through Viola to Eyota. A gust of 63 mph occurred at Elgin. Crops were damaged between Viola and Eyota by pea size hail being driven by the strong thunderstorm winds.												

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
<b>MINNESOTA</b>									
Olmsted and Fillmore Counties	9	1400-1500CST			0	0	3	0	Hail, Lightning
									Thunderstorms moving southeast from Olmsted into Fillmore County dropped one-inch hail at Marion, Chatfield and Spring Valley. Lightning also caused fire damage to an apartment building in Spring Valley after hitting a television antenna.
Lincoln County	14	0830-1000CST			0	0	?	6	Wind, Hail
									A thunderstorm producing hail up to 3/4 inch and wind up to 60 mph caused extensive crop damage to an area 8 miles wide and 12 miles long south of the city of Hendricks.
Halstad (Norman County)	16	2045CST			0	0	0	0	Hail
									Hail 2 inches in diameter fell in the vicinity of Halstad.
Norman County	16	2105-2125CST			0	0	0	0	Hail
									Golf ball size hail reported from 5 to 10 miles west of Ada.
Felton (Clay County)	16	2145CST			0	0	0	0	Hail
									Golf ball size hail reported at Felton.
Cass County	16/17				0	0	4	0	Flooding
									Rain that was heavy at times fell across northern Minnesota on July 16th and 17th. Accumulation reached 8 inches near Backus by the evening of July 17th. Flooding of roads and fields occurred west of Pine River. Basements gathered as much as 2 feet of water and phone service in the area was disrupted. Seven miles west of Pine River, 30 feet of a county road was washed out in the Dabill Creek area. One to two feet of water was over other roads in the area, leaving several families marooned.
Yellow Medicine County	17	1640-1720CST			0	0	0	0	Wind
									Thunderstorms crossing Yellow Medicine County produced 60 mph winds at Canby and near St. Leo.
Clay County	20	1800CST			0	0	0	0	Hail
									Hail 3/4 inch in diameter reported just south of Moorhead.
Squaw Lake (Itasca County)	20	1825CST			0	0	0	0	Hail
									Golf ball size hail fell at Squaw Lake.
Bemidji (Beltrami County)	20	1840CST			0	0	0	0	Wind
									A thunderstorm produced a gust of 58 mph at the airport in Bemidji.
Orr (St. Louis County)	20	1900CST	0.1	10	0	0	3	0	Tornado (F0)
									A tornado pulled out and smashed two windows and a door and tore off a television antenna at a home on Moose Lake outside of Orr. The tornado went on to cause minor damage to a small commercial building and twisted the top off a tree 20 feet from the ground and deposit it on a small outbuilding.
Red Lake County	23	1615CST			0	0	0	0	Funnel
									Funnel observed west of Dorothy.
Polk and Red Lake Counties	23	1700CST			0	0	3	?	Wind, Hail
									Hail started near Euclid along Highway 75 and continued east in a 4 mile wide and 7 mile long band into Red Lake County. The size of the hail ranged from 1/2 to 1-1/2 inches in diameter. Strong winds accompanied the hail. Trees were knocked down, a grain bin was blown over and crops were damaged.
Red Lake County	23	1730-1740CST			0	0	0	?	Hail
									One-half to one inch in diameter hail fell in a 2 mile wide band from 3 miles northwest of Red Lake Falls to 9 miles northwest of Red Lake Falls. Some crops were knocked down and hail covered the ground to a depth of 1 inch in some areas.

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
<b>MINNESOTA</b>									
Polk County	23	1825CST			0	0	0	0	Funnel
									Funnel observed 1 mile northwest of McIntosh.
Erskine (Polk County)	23	1825CST			0	0	4	0	Wind
									Thunderstorm winds twisted and broke off four steel transmission-line poles.
Moorhead (Clay County)	26	2230CST			0	0	0	0	Hail
									Hail 3/4 inch in diameter reported in south Moorhead.
Douglas County	27	2353CST			0	0	0	0	Hail
									Golf ball size hail fell 6 miles north of Alexandria near Lake Miltona.
<b>22 MISSISSIPPI</b>									
Lafayette County	1	1825CST			0	0	4	0	Hail
									Golfball to baseball sized hail damaged cars, demolished gardens, and damaged trees in the southern part of Oxford.
Central Mississippi	1	1945CST-2215CST			0	0	6	5	Hail, Thunderstorm Winds
									A single large severe thunderstorm developed in west-central Mississippi and moved southeastward about 100 miles before weakening. Although some high winds occurred in Jackson, this storm will be remembered for the hail it dropped. Dime to tennisball size hail occurred along the storm's path with a width from 5 to 10 miles. A post storm survey indicated that large hail fell from southern Yazoo County through northern Hinds County, southeastward into Smith County. Below is the chronological order of events received from this storm. 1945CST - Yazoo County..Nickel sized hail fell in Satartia. Crops throughout the area were damaged. 2052CST - Hinds County..Quarter to golfball sized hail fell. 2104CST - Through much of northern Jackson.. Roof damage was extensive. Wind gusts up to 62 mph were reported in downtown Jackson at 2058CST. 2110CST-2200CST - Rankin County..Golfball sized hail fell in Pearl at 2210CST. Extensive roof damage was reported. Dime to golf ball sized hail also occurred in parts of Brandon around the same time. At 2145CST, 1 1/2 inch hail in the town of Cato damaged 2 cars and ruined cotton crops. At 2200CST, pingpong sized hail covered the ground at Puckett. 2210CST - Simpson County..Golfball to tennisball size hail fell 5 miles north of Mendenhall. Mobile homes and cars were dented. Trees were stripped, with gardens severely damaged. 2215CST - Smith County..Dime sized hail fell in the town of Mize.
Jones County	1	2210CST-2220CST			0	0	?	?	Hail
									Golfball sized hail was reported in the northwest part of the county at 2210CST, and in the northeast part of the county at 2220CST.
Jasper County	1	2300CST			0	0	4	0	Lightning
									Lightning struck and severely burned a house about 1 1/2 miles south of Bay Springs.
Jones County	1	2305CST-2310CST			0	0	3	?	Thunderstorm Winds
									Strong winds blew down trees in Laurel at 2305CST, and 5 miles northwest of Ellisville at 2310CST.
Newton County	1	2330CST			0	0	4	?	Thunderstorm Winds
									High winds destroyed a haybarn and knocked a large tree onto a storage building near Newton. Also, several trees were blown down in Newton.
Perry County	2	0025CST			0	0	?	?	Hail
									Mothball sized hail fell just west of Richton.
Itawamba County	3	1245CST			0	0	0	4	Hail
									A hailstorm dropped a large amount of 1/2 to 3/4 inch hail, destroying 75 acres of cotton and damaging another 80 acres. The hail path was about a half mile wide and extended east-west through the county north of Fulton.
Fishowingo County	3	1400CST			0	0	3	?	Thunderstorm Winds
									Numerous trees were blown down in North Crossroads and Burnsville.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1965

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	

## MISSISSIPPI

Harrison County	5	1530CST-6 0400CST			0	0	6	0	Flood
<p>Rainfall amounts of 6 to 10 inches occurred across portions of Harrison County, causing streams to overflow. Most of the heavy rain fell between 800 CST and 1800 CST. However, because of some problems with drainage ditches, the water was slow to recede once flooding began in Gulfport. A total of 167 houses and 27 businesses were flooded in Gulfport. Also, 101 apartments and 213 cars were damaged from the flood waters. At least 18 major streets were flooded in Gulfport, with many of them covered with 2 to 3 feet of water.</p>									
Lauderdale County	11	1303CST-1325CST			0	0	?	?	Hail
<p>One inch sized hail fell in the town of Bailey at 1303CST. One and a quarter inch hail fell about 10 miles north of Meridian at 3125CST.</p>									
Hinds County	11	1351CST			0	0	4	0	Lightning
<p>A bolt of lightning struck a tree next to a residence in Jackson. The lightning then traveled into the house and started a fire in a bedroom. The house received moderate damage from the fire, but 3 people in the house at the time escaped unharmed.</p>									
Rankin County	11	1415CST			0	0	?	?	Hail
<p>Quarter sized hail covered the ground at Florence.</p>									
Jones County	11	1500CST			0	0	3	?	Thunderstorm Winds
<p>Winds up to 60 mph were reported in Laurel.</p>									
Wayne County	11	1500CST			0	0	?	?	Hail
<p>Hail the size of pennies fell about 4 miles south of Waynesboro.</p>									
Leflore County	11	1500CST			0	0	?	5	Hail
<p>Hail the size of quarters heavily damaged cotton and rice crops near Itta Bena.</p>									
Madison County	11	1515CST-1530CST			0	0	4	3	Hail, Thunderstorm Winds
<p>Winds up to 70 mph occurred about 3 miles north of Flora. Numerous large trees and power lines were blown down. One outbuilding was blown over and one house sustained roof damage. Marble to golfball sized hail also occurred.</p>									
Sunflower County	11	1630CST			0	0	?	5	Hail
<p>Golfball sized hail fell north of Indianola, near Baird and Caile. Cotton crops were heavily damaged in these areas.</p>									
Grenada County	11	1700CST			0	0	4	?	Thunderstorm Winds
<p>Strong winds blew down trees in Grenada. A scoreboard was blown over at a football stadium.</p>									
Stone County	11	1710CST			0	0	4	0	Lightning
<p>A building on the Civitan Camp for the retarded was struck by lightning. The building consequently caught on fire and was destroyed.</p>									
Humphrey County	11	1730CST			0	0	5	?	Thunderstorm Winds
<p>Winds between 60 and 70 mph were reported at Belzoni. Large trees were blown over, causing damage to houses and cars.</p>									
Jackson County	15	1210CST			0	0	?	?	Hail
<p>Golfball sized hail fell at Moss Point.</p>									
Attala County	15	1800CST			0	0	?	5	Hail
<p>Marble to quarter sized hail stripped over 200 acres of cotton and 80 acres of sorghum. The damage was not as much attributed to the hail size as it was to the amount of it.</p>									
Monroe County	15	2225CST			0	0	5	0	Lightning
<p>Lightning struck a residence in the town of Prairie. The lightning caused a fire which destroyed the house. Lightning also struck a house in Aberdeen at 2050CST, resulting in a fire, but damage was light.</p>									
Pike County	19	1430CST			0	0	5	0	Lightning
<p>A low-power television station in McComb was struck by lightning and sustained major damage. The station had to be off the air for 2 days while around-the-clock repairs were made.</p>									
Tishomingo County	22	1530CST			0	0	5	0	Lightning
<p>Lightning struck a furniture manufacturing company in Belmont. The building burned and exploded. No one was injured because the employees had left work an hour earlier.</p>									
Jackson County	23	1351CST			0	1	0	0	Lightning
<p>A man standing in the doorway of a gift shop was struck by lightning. The man was released the same day from the hospital after his injuries were treated.</p>									
Hancock County	24	1400CST			0	0	5	0	Lightning
<p>A 5 bedroom house near Bay St. Louis was struck by lightning. The house caught on fire and was a total loss.</p>									

## 23 MISSOURI

Douglas County	3	1840CST			0	0	0	0	Large Hail
Ray and Clay Counties	4	1540CST			0	0	?	?	Large Hail
<p>Hail to 2 1/2 inch diameter on the County Line of Ray and Clay.</p>									
Monroe County	4	1700CST			0	0	0	0	Large Hail
<p>Hail ranging in size from 1/4 inch to 1 1/2 inch diameter reported 9 miles north of Holiday.</p>									

## MISSOURI

Jackson County	4	1706CST			0	0	0	0	Large Hail
<p>Hail to 1 inch diameter at Independence Center.</p>									
Monroe County	4	1713CST			0	0	?	?	Large Hail
<p>Hail to 2 1/4 inch diameter at Holiday.</p>									
Monroe County	4	1720CST			0	0	?	?	Large Hail
<p>Hail reported to 4 inch diameter at Holiday.</p>									
Jackson County	4	1720CST			0	0	?	?	Large Hail
<p>Numerous reports of hail 1 to 1 1/2 inch diameter from the Kansas-Missouri line to Independence.</p>									
Cass County	4	1730CST			0	0	0	0	Large Hail
<p>Hail to 3/4 inch diameter reported by sheriff at Harrisonville.</p>									
Johnson County	4	1810CST			0	0	5	4	Damaging Wind and Hail
<p>Winds damaged trees, sheds and awnings in Warrensburg. Hail was reported 1/2 to 3/4 inch diameter by ASCS Reporting Service. The ASCS report also indicated damage to corn from wind.</p>									
Shelby and Marion Counties	4	1820CST			0	0	4	0	Large Hail and Damaging Wind
<p>Wind gusts to 60 mph produced some tree damage to Lakenan and surrounding area on the Shelby and Marion County Line. Hail to 3/4 inch diameter was also reported.</p>									
Marion County	4	1849CST			0	0	4	0	Large Hail and Damaging Wind
<p>The southern portion of Hannibal received hail to 3/4 inch diameter, and tree damage from winds 60 to 70 mph. The wind forced cancellation of the fireworks display.</p>									
Ralls County	4	1855CST			0	0	3	0	Damaging Wind
<p>Wind produced damage to some trees in Saverton.</p>									
Randolph County	4	1900CST			0	0	?	?	Large Hail
<p>Hail to 1 1/2 inch diameter at Huntsville.</p>									
Randolph County	4	1901CST			0	0	4	?	Large Hail and Damaging Wind
<p>Large trees downed by wind near Moberly. Hail to 1 inch diameter also reported.</p>									
Ralls County	4	1910CST			0	0	0	0	Large Hail
<p>Hail to 3/4 inch diameter at Perry.</p>									
Lafayette County	4	PH			0	0	0	5	Hailstorm
<p>ASCS reported a severe hailstorm in southern and western portion of the county. No size was given.</p>									

## 24 MONTANA

NW of Red Lodge, between Luther and Roscoe; Carbon County	17	1715MST			0	0	3	3	Wind/Hail
<p>A storm with strong winds and hail to 1 1/2 inches in diameter broke windows and chipped paint off buildings and fences. Garden and grain crops were also destroyed.</p>									

## 25 NEBRASKA

Boyd County	01	2000CST			0	0	0	4	Hail
<p>Hail to 1 inch in diameter damaged crops on about 1280 acres 2 1/2 miles west of Butte.</p>									
Dawes County	03	1500CST			0	0	5	4	Lightning
<p>Fire started by lightning burned 3,500 acres, including an estimated 375,000 trees in the Pine Ridge about 32 miles southwest of Chadron. A number of barns, outbuildings and hay stacks were also burned. The fire took until July 7th to bring under control.</p>									
Sheridan County	03	1600CST			0	0	0	3	Damaging Winds
<p>Thunderstorm winds estimated 60 to 70 m.p.h. damaged some crops south of Gorden.</p>									
Cherry County	03	1630CST			0	0	5	4	Lightning
<p>Fire started by lightning blackened 2,000 to 3,000 acres of grassland and trees in the Schlage Canyon area of the Niobrara River, about 7 miles south of Valentine. Thirty other small prairie fires started by lightning were reported between Cody and Wood Lake.</p>									
Knox County	03	1730CST			0	0	3	4	Lightning
<p>Lightning started a fire on a farm near Verdigris, burning hay stacks, prairie grass and feed bunks.</p>									



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	

## NEBRASKA

Dawson County	10	1704CST -1730CST	0	0	5	7	Damaging Winds		
Thunderstorm winds to 86 m.p.h. were clocked at the Cozad Airport in Cozad. Trees were uprooted, power lines downed, trailers destroyed and one house moved from its foundation. Three miles northwest of Lexington, 2 stock trailers were moved together, mobile homes damaged, trees limbs downed and windows blown out of a truck. About the western half of Dawson County received extensive crop damage with an estimated eighty percent loss from west of Willow Island.									
Cherry County	11	1700CST	0	0	?	?	Lightning		
Lightning started prairie fires near Crookston and in the McKelvie Forest grasslands.									
Brown and Rock Counties	11	1730CST	0	0	0	4	Hail		
Hail damaged crops in an area about 8 miles long and 2 miles wide, from 10 miles west to 4 miles south of Bassett.									
Keya Paha and Brown Counties	11	1730CST -1830CST	0	0	?	?	Lightning		
Lightning started several range fires in northern Brown and western Keya Paha Counties.									
Lincoln County	11	1730CST	0	0	3	0	Lightning		
Fire started by lightning destroyed grasslands and pine trees 3 miles north of North Platte.									
Logan County	14	1305CST	0	0	0	4	Hail		
Hail to 1 1/2 inches in diameter with high winds damaged around 900 acres of crops in the area northeast of Stapleton.									
Custer County	14	1310CST	0	0	6	6	Hail		
One and a half to four inch hail with 40 m.p.h. winds pounded the area in and around Arnold. Numerous homes received extensive damage to roofs, windows, siding and interiors. A large number of vehicles received broken windshields and badly dented bodies. An estimated 83,200 acres of farmland were affected with crop damage. Twenty cattle and 200 hogs were killed.									
Custer County	14	1430CST -1500CST	0	0	3	4	Hail		
One to 1 1/2 inch hail fell in and around Merna and Broken Bow, causing crop and some property damage.									
Dawson, Gosper, and Furnas Counties	14	1520CST	0	0	6	7	Damaging Winds and Hail		
A severe thunderstorm moved from north of Cozad through Elwood, Arapahoe, Edison, Hendley and Beaver City. Hail to near 3 inches in diameter near Cozad damaged crops, broke windows in houses and knocked windshields out of cars and trucks. South of Arapahoe, winds were estimated near 100 m.p.h., damaged out-buildings at the golf course and destroyed one barn. In Edison, roofs were damaged, and limbs and power lines were downed. All towns in the path sustained roof and tree damage. A combination of 80 to 100 m.p.h. winds and large hail caused crop damage in the millions through the 3 counties.									
Lincoln County	14	1600CST	0	0	0	4	Hail		
Hail damaged crops in the northeast part of the county and also in approximately 11,000 acres southeast of Brady.									
Sioux County	15	1635CST	0	0	0	3	Hail		
Hail to 1 1/2 inches was reported about 10 miles north of Morrill in southwest Sioux County. Some crop damage did occur.									
Cherry County	16	1720CST	0	0	?	?	Hail		
One and a half inch hail was reported 15 miles southeast of Valentine.									
Keya Paha and Brown Counties	16	1730CST -1900CST	0	0	4	5	Damaging Winds and Hail		
Hail to 1 1/2 inches in diameter damaged crops, buildings and cars from 5 to 10 miles northwest of Springview to 5 northwest of Ainsworth. Seventy m.p.h. winds blew down some fences and large tree limbs.									
Keya Paha County	17	1745CST	1	50	0	0	3	3	Tornado (F1)
A tornado touched 3 miles north and 2 miles west of Springview and moved east one mile, uprooting trees, blowing the roof off a shed and damaging a corn crib. FPP111									
Butler County	18	2045CST	0	0	3	4	Hail and Damaging Winds		
Strong winds and 3/4 inch hail heavily damaged crops and blew down trees 2 miles south of Surprise.									
Saunders, Lancaster, and Cass Counties	18	2115CST	0	0	5	4	Damaging Winds		
Strong thunderstorm winds demolished a barn and blew over a windmill 2 miles south of Ceresco. Trees were damaged in and around Ceresco, with some limbs falling on vehicles. Wind also damaged trees and signs at Waverly and Greenwood, along with damaging crops in surrounding areas.									
Saunders County	18	2130CST	0	0	2	0	Lightning		
Lightning struck and killed a cow in a pasture on the south side of Ceresco.									

## NEBRASKA

Dodge, Washington, Saunders, Douglas, Sarpy, Cass and Otoe Counties	18	2130CST -19 -0300CST	0	0	5	0	Lightning		
Thunderstorms with an abnormal amount of electrical activity resulted in numerous lightning strikes. At least 15 homes and a number of businesses were struck in Omaha with 61 power outages. Around 200 power outages were reported in the counties, including around Blair, Louisville, Syracuse, Ashland, Gretna and Nebraska City.									
Polk, Butler, Washington, Saunders, York, Seward, Lancaster, Fillmore and Saline Counties	18	2130CST -19 -0400CST	0	0	6	5	Flash Flood		
Thunderstorms dumped rain generally in excess of 2 inches in an area bounded by a line from Blair to Columbus to Grand Island to Crete to Nebraska City. Inside this area pockets of 4 to nearly 10 inches fell around Stromsburg, 7 to 8 inches in the York-McCool Junction area and 4 to 7 inches from Lincoln to the Seward area. Considerable lowland flooding took place along the upper Big Blue River, Lincoln Creek, the West Fork Big Blue River and along the main stem of the Big Blue River down to the Crete area. Urban flooding hit several homes and businesses in Seward from Plum Creek. City parks in Surprise, Ashland and Crete, all caught flood waters. Basements flooded in several homes in York and Blair. Davis Creek flooded in Osceola. Major erosion occurred to farmland and county roads were damaged.									
York County	19	0005CST	0	0	4	0	Damaging Winds		
Thunderstorm winds in York broke tree limbs and damaged a home under construction.									
Knox County	21	1350CST -1430CST	0	0	3	4	Hail		
One and a half inch hail damaged crops north of Wausa. Three-quarter inch hail was also reported at Crofton and Lewis & Clark Lake, with some damage to crops and vehicles.									
Morrill County	23	1300CST -1530CST	0	0	4	?	Flash Flood		
Heavy rain caused lowland and urban flooding around Broadwater, and washed out railroad tracks 6 miles east of town.									
Banner County	31	1615CST	0	0	0	0	Funnel Cloud		
A funnel cloud was reported 6 miles east of Harrisburg.									
Dawes County	31	1630CST	1/4	100	0	3	0	Tornado (F1)	
A tornado touched down 1 mile west of Crawford and uprooted numerous trees. FPP102									
Banner and Kimball Counties	31	1715CST -1830CST	0	0	5	5	Flash Flood		
Heavy rain fell from southwest Banner County into eastern Kimball County. Around 6 1/2 inches was reported from southwest Banner County to about 10 miles north-northwest of Kimball. Six inches of rain was reported south of Dix and 4 inches at Kimball. Lowland flooding heavily damaged crops and washed out some county roads and fences. Heaviest damage was from north of Bushnell to north of Kimball where Highway 71 was closed for a time by flooding.									

## NEVADA

Elko County, Elko	05	1802PST	0	0	0	0	Thunderstorm Winds		
Thunderstorm outflow winds gusted to 75 mph at the Elko airport.									
Churchill County, Fallon	06	1520PST	0	0	3	?	Thunderstorm Winds		
Thunderstorm outflow winds gusting to 70 mph produced minor damage and power outages.									
Lyon County, Smith Valley	06	1715PST	0	0	2	?	Thunderstorm Winds		
Thunderstorm outflow winds gusting to 60 mph produced tree damage.									
Elko County, Elko	07	1440PST	0	0	0	0	Thunderstorm Winds		
Thunderstorm outflow winds gusted to 58 mph at the Elko airport.									
Clark County, Lake Mead	15	1900PST	0	0	0	0	Thunderstorm Winds		
Thunderstorm outflow winds gusted to 65 mph at the harbor on Lake Mead.									
Esmeralda County, Dyer	17	1920PST	0	0	0	0	Flash Flood		
Heavy thunderstorm rains resulted in a flash flood on Macaffe Creek, with flooding over the highway nearby.									
Clark County, Las Vegas	21	1531PST	0	0	3	3	Flash Flood		
Heavy thunderstorm rains resulted in many road closures.									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

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					KILLED	INJURED	PROPERTY	CROPS	

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					KILLED	INJURED	PROPERTY	CROPS	

## NEVADA

Lyon County, Yerington	21	1552-1745PST			0	0	2	2	Flash Flood
Heavy thunderstorm rains, .47 inches in 30 minutes, resulted in localized flash flooding.									
Douglas County, Minden	26	1640PST			0	0	2	0	Thunderstorm Winds
Thunderstorm outflow winds gusting to 65 mph at the Minden airport pushed around a few airplanes.									

## 27 NEW HAMPSHIRE

Pittsfield (Merrimack County)	10	1500EST			0	0	4	0	Severe Thunderstorm
A severe thunderstorm passed through Pittsfield storm Wednesday afternoon, uprooting two large trees and causing widespread damage to medium and large tree limbs throughout the city. Scattered power outages were also reported. From reports, it appears it was straight-line wind damage.									
Winchester (Cheshire County)	15	2325EST			0	0	5	0	Severe Thunderstorm
A strong downburst, estimated at 90 mph from a thunderstorm, left a 200 yard long swath along Route 78. The wind uprooted several trees, downed power and telephone lines, caved in a 20 by 40 foot barn, shattered windows, and tore off part of the roof of a 19th century, two story Colonial home in Winchester.									

## 28 NEW JERSEY, Northern

Area-wide	15-16	Evening-Morning, Beginning again in afternoon on 16th			0	3	0	0	Thunderstorm
A series of heavy thunderstorms swept across the area, injured three persons, leveled power lines, cut electricity to thousands, damaged some homes and disrupted traffic. A male resident of Newark was treated and released after he was struck by lightning on a construction site in South River. In Old Bridge, two were treated and released after receiving minor injuries while talking on the phone during the thunderstorm. The thunderstorm pushed down temperatures briefly by 10 degrees, and wind gusts were recorded at 32 knots.									

## 28 NEW JERSEY, Southern

Cumberland, Atlantic and Cape May Counties	08	1800 to 2000 EST			0	1	3	0	Lightning, Heavy Rain
Thunderstorms accompanied by heavy rain caused roadway and street flooding. Lightning caused minor fires and minor structural damage to 1 barn and several houses. A man was injured when struck by lightning in Wildwood.									
Atlantic and Cape May Counties	08	2100 to 2300 EST			1	1	3	0	Lightning
Thunderstorms accompanied by considerable lightning caused minor damage to several homes. Lightning struck a man and a woman on the beach at Wildwood Crest. The man was killed and the woman seriously injured.									
Salem County	31	1800 EST			0	0	3	0	Wind
Wind gusts up to 71 MPH caused tree damage.									
Cumberland County	31	1830 to 1900 EST			0	0	3	0	Wind, Funnels
Wind gusts damaged trees, with some of them uprooted near Greenwich. Funnel clouds were also observed in this area.									

## 29 NEW MEXICO

Albuquerque, Bernalillo County	20	1130MST			-	1	-	-	Lightning
A postman was struck by lightning.									
Hobbs, Lea County	24	1530MST	?	?	-	-	4	-	Tornado (FO)
A tornado touched down twice in the City of Hobbs. A mobile home was moved from its foundation and a portable building was damaged, as were some other light structures in the area.									
Artesia, Eddy County	25	0925MST	?	?	-	-	1	-	Tornado (FO)
A tornado was spotted on the ground in an open area about eight miles north-northeast of Artesia.									

## 30 NEW YORK, Coastal

Extreme SE Nassau Co., 15- Suffolk Co., New York City, Westchester and Staten Island	16	Evening-Morning, Beginning again in afternoon on 16th			0	0	0	0	Thunderstorm/Hail
Thunderstorms bearing lightning, a 20 minute torrent of rain and hail caused considerable street flooding. Some exits on the Brooklyn-Queens Expressway ran into heavy flooding and caused cars to stall and overheat. Water was as much as 2-feet deep for two-block stretches, with jammed underpasses and exits.									

## 30 NEW YORK, Central

Albany County	03	1645EST			0	0	4	0	Lightning
Lightning struck a home in the City of Albany and resulted in a fire.									
Waterford, Saratoga County	06	1445EST			0	0	3	0	Thunderstorm
Thunderstorms (convective) knocked down trees in the Village of Waterford. A blackout swept over the north side of the village as a result of downed trees/powerlines. More than seven hours were needed to clean up the damage.									
Clinton County	06	1200EST			0	0	2	0	Thunderstorm
Fast-moving, powerful thunderstorms rolled across Clinton, uprooting trees, downing powerlines and drenching the area in rain. Plattsburg A.B. estimated winds at the storm center at 35-60 miles per hour. One pilot who flew through the storm reported hail and strong winds. Strong winds on Lake Champlain resulted in several sailboaters having to be rescued. (As the storm passed into Canada, a tornado was reported which picked up a house and put it in a river.)									
Onieda & Madison Counties	09	2000EST			0	0	5	0	Thunderstorms
Strong thunderstorms ripped through Onieda and Madison Counties, causing considerable damage. Trees and large limbs were brought down. Lightning was blamed for a house fire and a restaurant fire in Utica, a house fire in New York Mills, and a house fire in Whiteboro. Elsewhere, lightning knocked out emergency radio communications in Onieda County. In Madison County, trees and power lines were down. At Vernon Downs Racetrack, racing had to be suspended due to power outages.									
Dutchess & Ulster Counties	09	2030EST			0	0	5	0	Thunderstorms
Thunderstorms resulted in downed trees and limbs, as well as powerlines. In Dutchess County, at 2120EST, vivid lightning resulted in house fires in Hyde Park, Arlington, Pecksville and Poughkeepsie. In Ulster County, lightning caused fires in the towns of Modena, Highland, Clintondale, Accord and New Paltz.									
Binghamton, Broome County	10	1745EST			0	0	1	0	Wind Gusts
Wind gusts to 46 miles per hour and rain, 0.99 inches in 66 minutes, were reported. Two miles north of Binghamton, 1/2 inch hail was reported. At between 1730 EST and 1800 EST, wires were reported down in Endwell (6 S BGM) and trees down in Glen Aubrey (3 NW BGM) and Hillcrest (6 SE BGM).									
Tioga County	12	1430EST			0	0	?	0	Thunderstorm
Numerous trees were downed in Barton, Southwest Tioga County. 0.75 inch hail fell in Appalachin, Tioga County. Low lying areas flooded around Oswego. In the Town of Maine, lightning struck a trailer and resulted in a fire which destroyed the structure.									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

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## NEW YORK, Central

Ulster, Sullivan & Orange Counties	12	1700EST			0	0	5	0	Thunderstorms
<p>Isolated thunderstorms peppered the lower Hudson Valley and Catskills Friday night. Marble-size hail was reported at Kingston and Ulster Heights. At 1745EST, Liberty (Sullivan County) received 0.75 inches of rain and 1 inch hail in five minutes. Claryville received 3/4 inch hail. Ashokan Reservoir received a storm total of 3 inches.</p>									
Rome, Onieda County	15	1610EST			0	0	3	4	Thunderstorm
<p>High winds hit the Spring Brook Farms. Damage consisted of a destroyed silo, its cap tossed into a pond in one piece with the light bulb intact. Several old maple trees were uprooted, fencing was uprooted and scattered, and damage done to the home. WSO Syracuse recorded wind gusts of 55 miles per hour at 1600EST. This was due to a cold frontal passage.</p>									
Hinckley, Onieda County	15	1650EST			0	0	0	0	Wind
<p>Large branches were downed.</p>									
Ft. Plain, 32 ESE UCA; Montgomery County	15	1745EST			0	0	1	0	Wind
<p>Downed power lines and branches.</p>									
Round Lake, 11 N ALB; Saratoga County	15	1845EST			0	0	1	0	Wind
<p>Downed power lines.</p>									
Edmonston, Ostego County	26	1255EST	5	12	0	0	3	4	Tornado (F1)
<p>A tornado touched down in the Town of Edmonston, 27 SSE UCA, and moved almost due east for about five miles. In the Town of West Burlington, 28 SSE UCA, one barn was destroyed and several trees were destroyed. Steel park benches at a campsite near Clock Hill Mountain were uprooted and twisted.</p> <p>One observer reported hearing a loud train whistle and observed a funnel which he estimated at 40 yards at the base. The funnel seemed to have an intermittent path.</p> <p>Phones were knocked out of service in the Town of Richfield about 1315EST due to strong winds. Heavy rain, 1.00+ inches, in 45 minutes was reported by a stream observer along the west branch of Otadawa, in the Town of Ostego, about 1315EST.</p> <p>F-1, P-2, P-0</p>									

## 30 NEW YORK, Western

Parts of Erie and Chautauque Counties	05	1130 EST to 1300 EST					4		Lightning and Wind
<p>Severe thunderstorms passed across the area. They had strong winds, lightning, and heavy rains. Trees and power lines were felled at Lakewood, Silver Creek, and Sheridan, all in Chautauque County.</p> <p>Derby, Hamburg, Lancaster, and West Seneca in Erie County had trees and electric wires downed. Localized flooding reportedly occurred at Derby.</p>									
Elmira, Chemung County	09	1600 EST				1			Lightning
<p>A lightning bolt struck and injured a man, unknown age, while he was standing under a tree during a brief but violent thunderstorm. He was hospitalized.</p>									
Parts of Monroe and Orleans Counties	10	1245 EST					4		Wind and Hail
<p>A storm pummeled northeastern Orleans and north-west Monroe Counties with golf sized hail that piled 6 inches deep in spots.</p> <p>In Medina, Orleans County, strong winds snapped a few large trees.</p>									
Parts of Steuben and Chemung Counties	12	1325 EST to 1430 EST					5		Lightning Wind, & Hail
<p>Hail with diameters measuring up to an inch damaged roofs of cars and homes in the Corning area. In Elmira, a home was set on fire by a lightning bolt. Local firemen extinguished the fire. Some electrical wires were blown down by strong winds. New York Electric and Gas reportedly had 12 transformers damaged which caused a 4-hour outage to about 2700 customers.</p>									

## NEW YORK, Western

Granby, Oswego County	14	1030 EST			1	0	-	-	Lightning
<p>In the town of Gibson, just east of Corning, a lightning bolt damaged the town's water reservoir. About 150 homes were without water or had low water pressure for a few weeks.</p>									
Parts of Jefferson County	15	Afternoon					4		Rain
<p>A lightning bolt struck and killed a 32-year old male farmworker as he and his co-workers ran for cover during a thunderstorm. His companions were not hurt.</p> <p>Up to 3 inches of rain fell in 2 hours in the Adams area, just south of Watertown. This turned Sandy Creek to a sea of mud as it caused severe erosion along its course to Lake Ontario. Village streets were inundated with water rushing above the curbs in the downtown area. Roadway shoulders were washed away. It left piles of rocks and sand at road intersections.</p> <p>Farmers reported some damage to grain crops.</p>									

## 31 NORTH CAROLINA

Tryon Area, Polk County	04	1300EST			0	0	4	0	Thunderstorm Wind
<p>A shed roof was torn off as was part of a roof of a barn. Many large trees were blown down, one onto a house; one house was moved off its foundation by the wind.</p>									
Norwood Area, Stanly County	04	1400EST			0	0	3	0	Thunderstorm Wind
<p>Two storage sheds were destroyed and many trees were blown down.</p>									
High Point, Guilford County	04	1730EST			0	0	?	?	Thunderstorm Wind
<p>A dozen trees were uprooted and numerous power outages reported.</p>									
One Mile West of Browns Summit, Guilford County	04	1815EST-1830EST			0	0	0	5	Thunderstorm Wind, Hail
<p>Several trees uprooted or broken off along highway NC150; tobacco crops were stripped by wind and hail of unknown size.</p>									
Laurinburg, Scotland County	04	2000EST			0	0	3	0	Thunderstorm Wind
<p>Trees and power lines were blown down. Numerous power outages were reported. A car crashed into fallen trees, but no injuries reported.</p>									
One and One Half Miles Northwest of Harrells, Sampson County	05	1748EST			0	0	3	?	Thunderstorm Wind
<p>A severe thunderstorm blew over and uprooted trees in a swath 60 by 100 yards. Power lines were blown down, and the roof of a turkey barn was damaged.</p>									
Wallace, Kenansville; Duplin County	05	1820EST-1840EST			0	0	?	?	Thunderstorm Wind
<p>In the Wallace area, a tree was blown down just north of town at 1825. Many tree limbs and power lines were blown down in the Kenansville area beginning around 1820EST, with trees being blown down until around 1840EST.</p>									
Rosman, Brevard, Cashiers, Areas of Transylvania County	09	1545EST-1640EST			0	0	?	4	Thunderstorm Wind, Hail
<p>A severe thunderstorm moved across the county and then into South Carolina. One inch hail fell in Rosman; large limbs blown off trees in many areas by winds higher than 40MPH. Damage was first reported between Cherryfield and Rosman at 1545EST, where \$10,000 hail damage to tobacco and vegetables occurred.</p>									
Manteo Area, Dare County	09	1740EST			0	0	0	0	Waterspout, Thunderstorm Wind
<p>A waterspout was reported near the Manteo-Nags Head Causeway and wind gusts to 60MPH reported at the Dare County Airport in Manteo. The roof of a mobile home was blown off in Manteo.</p>									
Northern Wilkes County	10	1200EST-1250EST			0	0	0	5	Hail
<p>Large hail fell for up to 35 minutes at some locations. At 1240EST, one inch hail fell for ten minutes, destroying ten acres of tobacco near Traphill.</p>									

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## — NORTH CAROLINA

Surry County	10	1235EST			0	0	0	4	Thunderstorm Wind, Hail
			Three-quarter inch hail was reported at Rauon Knob in northwest part of county. Trees were blown down and crops damaged by hail of unknown size north of Elkin.						
Halifax County	10	1335EST-1348EST			0	0	0	?	Hail
			Seven-eighths inch hail reported at Weldon (1335 EST), seven-eighths inch at Roanoke Rapids (1335 EST) and 1-3/4 inch hail just south of Roanoke Rapide (1348EST).						
Southern Alexander County	10	1350EST			0	0	0	?	Hail
			Sheriff reported 3/4 to one inch hail.						
Catawba County	10	1357EST-1415EST			0	0	3	?	Thunderstorm Wind, Hail
			Three-quarter inch hail at Newton (1357EST), one inch hail and gusts to 60MPH reported Conover and Claremont areas (1415EST). In the Claremont area, many trees and power lines were blown down and several outbuildings were destroyed.						
Two Miles East of Severn, Northampton County	10	1400EST			0	0	3	0	Thunderstorm Wind
			Power lines blown down.						
Near Statesville, Iredell County	10	1425EST			0	0	?	?	Thunderstorm Wind, Hail
			Skywarn observer reported hail larger than 3/4 inch and wind gusts from 60-70MPH.						
Hertford County	10	1430EST-1516EST			0	0	4	?	Thunderstorm Wind
			Power lines were blown down and an outbuilding was destroyed near Winton at 1430EST. Trees were uprooted at 1513EST near Murfreesboro, and a roof was blown off a barn near Como at 1516EST.						
Roduco, Gates County	10	1525EST			0	0	0	0	Thunderstorm Wind
			Large trees blown down near town.						
Town of Hertford, Perquimans County	10	1600EST			0	2	4	0	Thunderstorm Wind
			Two workers were injured when a roof of a building collapsed during a thunderstorm.						
Craven County	10	1630EST-1708EST			0	0	?	?	Thunderstorm Wind, Hail
			Trees and power lines were blown down at New Bern (1630EST), 3/4 inch hail and a tree blown down at Bridgeton (1632 EST), and 3/4 inch hail reported three miles west of the airport (1655 EST), followed by one inch hail at the same location (1708EST).						
Olympia, Pamlico County	10	1640EST			0	0	?	?	Hail
			Three-quarter inch hail reported along highway 55.						
Dare County	10	1640EST-1856EST			0	0	?	?	Funnel Cloud, Thunderstorm Wind, Hail
			Seven-eighths inch hail reported on the Alligator River Bridge (1640EST), a funnel cloud was observed near Stumpy Point (1700EST), and wind gusts to 60 knots reported at the Cape Hatteras Coast Guard Station at Hatteras Village (1856EST).						
Harrells, Sampson County	10	Late PM			0	0	0	5	Hail
			One-half to three-quarter inch hail fell for 30 minutes, causing 30% to 100% loss to 25 acres of tobacco.						
Maysville, Jones County	10	1800EST			0	0	0	?	Hail
			Three-quarter to one inch hail reported.						
Old Fort Mountain, Buncombe and McDowell Counties	10	1815EST			0	0	5	0	Hail, Lightning
			Three-quarter inch hail reported as a severe thunderstorm moved across Buncombe County into McDowell County. A house and contents burned when struck by lightning.						
Surry County	10	1830EST-1855EST			0	0	3	0	Thunderstorm Wind
			Trees and power lines blown down in Mt. Airy at 1830EST. At 1855EST, trees were blown down along Highway 89 near Westville.						

## — NORTH CAROLINA

Craven County	10	1838EST-1937EST			0	0	3	?	Hail
			A second cluster of severe thunderstorms moved into this area. Three-quarter inch hail began to fall in New Bern at 1838EST, and one inch hail fell just southeast of the city at 1937EST. Three-quarter inch hail fell at Havelock at 1841EST.						
Janesville, Martin County	10	1900EST			0	0	?	?	Hail
			Three-quarter inch hail reported.						
Coopers Gap Township, Polk County	10	1900EST-2000EST			0	0	0	5	Hail
			Heavy crop loss to fruit and vegetable crops reported from hail up to one inch in the Mill Spring Area. Damage reported over eight square mile area.						
Stokes County	10	1900EST-1930EST			0	0	?	?	Thunderstorm Wind
			Trees were blown down across highways over the county.						
Catawba County	10	2004EST-2040EST			0	0	3	0	Thunderstorm Wind, Hail
			Trees and power lines were blown down at Hickory (2004EST), one inch hail and trees blown down at Conover (2011EST), and trees and power lines blown down at Conover with a second storm at 2046EST.						
Warren Plains, Warren County	10	2015EST			0	0	?	?	Hail
			Hail to 3/4 inch reported.						
Northwest Guilford County	10	2020EST			0	0	0	0	Thunderstorm Wind
			Gusts to 63MPH reported.						
Rutherfordton, Rutherford County	10	2025EST			0	0	?	?	Hail
			Hail to one inch reported.						
Yanceyville, Caswell County	10	2040EST			0	0	?	?	Hail
			Three-quarter inch hail reported.						
Vance and Franklin Counties	10	2040EST			0	0	?	?	Hail
			Three-quarter inch hail reported near Kittrell in Vance County and north of Franklinton in Franklin County.						
Mooresville Area, Iredell County	10	2045EST-2114EST			0	0	?	?	Thunderstorm Wind
			Spotters reported 60MPH winds at Mooresville (2045EST) and 8-10 miles north of Mooresville at 2114EST.						
Cleveland County	10	2059EST-2130EST			0	0	?	?	Thunderstorm Wind
			Trees were blown down west of Shelby (2059EST). In Kings Mountain, numerous trees and power lines were blown down by 60MPH winds (2130EST). Power was out for 12 hours.						
Gaston County	10	2100EST-2200EST			0	0	4	?	Thunderstorm Wind, Hail
			Three-quarter inch hail reported at Cherryville at 2100EST, power lines and trees were blown down at Belmont at 2137EST, gusts to 60MPH in Gastonia at 2140EST, and trees were blown down southwest of Gastonia around 2130EST. Power lines were blown down at Cramerton at 2200EST. Over the county, many small buildings were destroyed and one old barn destroyed.						
Durham County	10	2100EST-2115EST			0	0	?	?	Thunderstorm Wind, Hail
			One and three-quarter inch hail reported at Bahama (2100EST), and trees were blown down between Bahama and Durham at 2115EST.						
5 Miles Northwest Rocky Mount, Nash County	10	2100EST			0	0	?	?	Thunderstorm Wind
			Tree limbs and power lines blown across roads.						
Spring Creek Community, Madison County	10	2105EST			0	0	0	0	Thunderstorm Wind
			Several large trees were blown across Route 208.						
Fines Creek Area, Haywood County	10	2130EST			0	0	0	0	Hail
			One and three-quarter inch hail reported.						
South of Concord, Cabarrus County	10	2130EST			0	0	?	?	Thunderstorm Wind
			Trees blown down.						

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<b>— NORTH CAROLINA</b>									
Mecklenburg County	10	2153EST-2200EST			0	0	?	?	Thunderstorm Wind
		Trees blown down in southwest part of county at 2153EST, and in city of Charlotte around 2200EST.							
Stanly County	10	2215EST			0	0	?	?	Thunderstorm Wind
		Trees and power lines down western part of county.							
Eastern Harnett County	10	2330EST			0	0	3	0	Thunderstorm Wind
		Numerous power lines blown down in the Dunn and surrounding areas. One thousand customers without power.							
Hope Mills, Cumberland County	10	2335EST			0	0	0	0	Hail
		One inch hail reported.							
Columbus County	11	1620EST-1645EST			0	0	4	?	Hail
		North of Tabor City one inch hail broke the emergency light of a patrol car and damaged other cars at 1620EST. One and three-quarter inch hail fell in the Whiteville area from 1630EST to 1645EST. It covered lawns, cracked windows and damaged cars. The hail was still reported to be one inch after two and one-half hours.							
Three Miles East of Clarkton, Bladen County	11	1703EST			0	0	?	5	Thunderstorm Wind, Hail, Rain
		A road was washed out, trees were blown down, and 100 acres of tobacco damaged by hail ranging from 1/2 to 1-3/4 inch. Crop damage estimated at \$400,000.							
Spring Lake, Cumberland County	11	1900EST			0	0	0	0	Hail
		Three-quarter inch hail reported by spotter.							
Gatesville, Gates County	12	1345EST-1415EST			0	0	?	?	Thunderstorm Wind, Hail
		Three-quarter inch hail, and trees reported blown down.							
Colerain, Windsor; Bertie County	12	1350EST-1445EST			0	0	?	5	Hail, Thunderstorm Winds
		The storm lasted almost an hour in the Colerain and Windsor areas, producing heavy crop damage of \$135,000. Hail was up to 1-3/4 inch. Trees and power lines blown down and damage to buildings reported.							
Central Stokes County	12	1430EST			0	0	0	0	Thunderstorm Wind
		Trees were blown down.							
South of Smith-Reynolds Airport, Forsythe County	12	1545EST			0	0	0	?	Hail
		One inch hail covered ground.							
Ellendale Area, Alexander County	12	1600EST-1630EST			0	0	3	0	Thunderstorm Wind
		Numerous trees and power lines blown down.							
Mocksville Area, Davie County	12	1700EST			0	0	4	0	Thunderstorm Wind, Hail
		One and three-quarter inch hail dented cars and cracked windshields. Trees were blown down.							
Salisbury, Rowan County	12	1800EST			0	0	?	0	Thunderstorm Wind
		Trees and power lines were blown down.							
Henderson County	13	1400EST-1440EST			0	1	5	6	Thunderstorm Wind, Hail, Lightning, Rain
		One of the most severe storms in several years pounded much of Henderson County for almost an hour. Two thousand five hundred homes without power. At 1400EST, a woman was struck and injured by lightning at East Flatrock. Etowah, Dana, and Edneyville reported hail of 1-3/4 inch in diameter up to 18 inches deep in ditches. Rain water was five - six inches deep on roads. The area of heaviest damage was about one mile wide and three miles long through 25 farms. Crop damage was estimated at up to \$1.5 million to apples and \$150,000 to vegetables. Winds to 60MPH reported near the Blue Ridge Mall at Hendersonville.							
Gaston County	13	1637EST-1651EST			0	0	?	?	Thunderstorm Wind, Hail
		Three-quarter to one inch hail reported south of Gastonia at 1637EST. Trees and power lines reported blown down in scattered parts of the county at 1651 EST.							

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
<b>— NORTH CAROLINA</b>									
Near Eden, Rockingham County	13	1655EST			0	0	3	5	Thunderstorm Wind, Hail
		A tin roof was torn off a chicken house, trees were blown down, and an outbuilding was crushed by falling trees. Hail from one to one and one half inch damaged 200 acres of tobacco.							
Big Lick Area, Stanly County	13	1655EST			0	0	3	0	Thunderstorm Wind
		A large metal barn was lifted from its foundation and moved 125 feet. Numerous trees were also blown down.							
Pamlico Sound, Pamlico County	14	1105EST			0	0	0	0	Waterspout
		Waterspout sighted near the mouth of the Neuse River.							
Maiden, Catawba County	14	1730EST			0	0	5	0	Thunderstorm Wind
		A 4,000 square foot brick wall was blown over, a trailer was overturned, power lines were blown down, and roofs of houses were damaged.							
Two Miles West of Atlantic Beach, Carteret County	15	0532EST			0	0	0	0	Funnel Cloud
		Sighted by public and police.							
High Point, Guildford County	15	1715EST			0	0	4	0	Rain
		Urban flooding damaged several vehicles in a parking lot. Water was reported up to dashboards.							
Three Miles West of Newton Grove, Sampson County	16	1152EST			0	0	0	5	Hail
		One and three-quarter inch hail caused crop damage of \$100,000.							
Three Miles North of Newton Grove, Johnston County	16	1205EST			0	0	0	?	Hail
		The above storm produced one inch hail as it moved into Johnston County.							
Edneyville and Howard Gap Road, Henderson County	16	1251EST			0	0	3	0	Thunderstorm Wind
		Trees were blown down across Howard Gap Road, and power lines blown down at Edneyville.							
Pikesville, Wayne County	16	1255EST			0	0	3	?	Thunderstorm Wind, Hail
		Three-quarter inch hail reported, and trees and power lines were reported blown down by fire marshall.							
Bentonville Area, Johnston County	16	1300EST			0	0	0	5	Hail
		Hail ranging from 1/2 to 3/4 inch damaged tobacco crops. Loss estimated at 60% to 70% over 25 acres.							
Sunnyview Community, Polk County	16	1305EST			0	0	?	?	Hail, Thunderstorm, Wind
		Three-quarter inch hail reported. Gustly winds scattered debris along Highway 9 near Lake Lure.							
Rickory Grove Area, Bladen County	16	1445EST			0	0	4	4	Lightning, Hail
		Lightning struck and killed 14 cattle, and hail of unknown size destroyed 10 acres of tobacco.							
Robersonville, Martin County	16	1500EST			0	0	4	0	Thunderstorm Wind, Rain
		Two and one half inches of rain fell in 40 minutes, causing minor urban flooding. A number of trees and power lines were blown down, some damaging homes. One roof was caved in by a tree.							
Shelby, Cleveland County	21	Evening			0	0	5	0	Lightning
		\$175,000 damage to a school when it partially burned.							
Rocky Springs, Taylorsville; Alexander County	22	1400EST			0	0	4	?	Thunderstorm Wind
		In the Rocky Springs community, roofs were blown off outbuildings, some metal barns were destroyed, and farm equipment was damaged. Trees were blown down in the Taylorsville area.							
Bayview, Beaufort County	22	1510EST			0	0	0	0	Waterspout
		Sighted on the Pamlico River.							
Southern Duplin County	22	1615EST			0	0	0	0	Thunderstorm Wind
		Trees were blown down.							
Raeford Area, Hoke County	22	1630EST			0	0	0	5	Hail
		\$232,000 in damage to tobacco from 1/2 inch hail.							
Stanly County	22	1720EST			0	0	0	0	Thunderstorm Wind
		A few trees were blown down over the county.							
Yanceyville Area, Caswell County	22	1730EST			0	0	4	0	Thunderstorm Wind
		Trees were blown across roofs, power lines were blown down, and one home was unroofed.							

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	

## — NORTH CAROLINA

Randolph County	22	1730EST								Thunderstorm Wind
Trees were blown down in the Liberty Winds and Cedar Falls area.										
Eastern 2/3 of State	24 to 25					0	0	6	?	Hurricane Bob
Some specific gusts noted with thunderstorms in squall associated with Bob: 25/0200EST - 83MPH Holden Beach in Brunswick County. At Long Beach \$30,000 damage to homes reported with this squall. 25/0700EST - 58MPH Holden Beach. Tree was blown onto a house at 0715EST. 25/0756EST - Tree blown down at Fair Bluff in Columbus County. 25/0800EST - Tree blown into a car at Wilmington in New Hanover County. Otherwise, many trees and power lines were blown down over the area as the remnants of the storm moved through the state. Rainfall amounts from three to six inches were rather common, causing widespread but mostly minor flooding. The most flooding reported was in High Point in Guilford County, the Sandhills, and across Franklin County where many small streams left their banks. Some shoreline erosion and minor flooding was reported in Brunswick and New Hanover Counties. Total storm damage across the state was estimated at \$1.5 million.										
Mt. Airy Area, Surry County	26	Afternoon				0	1	0	0	Lightning
A man was struck and injured by lightning while standing under the eave of a barn.										
Blowing Rock, Watauga County	26	Evening				0	0	5	0	Lightning
A home and contents valued at \$425,000 burned after being struck by lightning.										

## 32 NORTH DAKOTA

Langdon 11W (Cavalier County)	03	1730CST								Hail
Hail 1 inch in diameter was reported by a State Highway Patrolman. No damage reported.										
Buttville (Ransom County)	03	2345CST				0	0	4	0	Thunderstorm Winds
Strong thunderstorm winds twisted and lifted a seed storage building from its concrete foundation.										
Hansboro (Towner County)	16	1540CST				0	0	?	?	Hail
Quarter-sized hail covered the ground.										
Langdon (Cavalier County)	16	1650CST				0	0	5	C	Hail
Hail 3/4 of an inch in diameter occurred. The hail damaged cropland.										
Western Walsh County	16	1730CST to 1900CST				0	0	6	6	Hailstorm
One of the most devastating hailstorms to ever occur in the area gave 100 percent destruction to much of the crops.										
Adams (Walsh County)	16	1800CST				0	0	6	6	Hail
Hail 1-3/4 inches in diameter occurred. The hail broke windows; damaged farm dwellings, machinery and vehicles; and caused considerable crop damage to surrounding farms.										
McCanna (Grand Forks County)	16	1900CST				0	0	6	6	Hail
Baseball-sized hail damaged crops and vehicles, and destroyed three greenhouses.										
Arvilla (Grand Forks County)	16	1915CST				0	0	5	5	Hail
Hail 1 inch in diameter occurred. The hail damaged cropland.										
Cummings (Traill County)	16	2017CST				0	0	?	C	Hail
Hail 3/4 of an inch in diameter occurred. The hail caused some crop damage.										
Fargo 45N (Traill County)	16	2030CST				0	0	?	?	Hail
Hail 1-3/4 inches in diameter occurred.										
Drayton 5WNW (Pembina County)	18	1700CST	Short	400		0	0	4	?	Tornado (F1)
A tornado uprooted trees and destroyed a trailer home.										

## — NORTH DAKOTA

Cavalier (Pembina County)	18	1750CST								Hail
Golfball-sized hail occurred. No damage reported.										
Wing (Burleigh County)	20	1910CST				0	0	0	0	Hail
Hail 3/4 of an inch in diameter occurred. No damage reported.										
Tuttle 4SE (Kidder County)	20	1930CST				0	0	0	0	Hail
Golfball-sized hail occurred. No damage reported.										
Extreme West	22	Day				0	0	0	0	Lightning
Lightning strikes caused numerous prairie fires on dry grasslands.										
Dickinson (Stark County)	22	1720CST				0	0	0	0	Thunderstorm Winds
Strong thunderstorm winds of 58 mph occurred. No damage reported.										
West Fargo (Cass County)	26	2105CST				0	0	0	0	Hail
Hail 3/4 of an inch in diameter was reported by the Cass County Sheriff.										
Harwood (Cass County)	26	2212CST				0	0	0	0	Hail
Golfball-sized hail occurred. No damage reported.										

## 33 OHIO

Northern Hamilton County	01	1900EST								Flash Flood
Five to seven inches of rain fell in the northern part of the county in less than 3 hours. Flash flooding occurred in Springdale, Farmersville, and northern Cincinnati. Several vehicles and campers were swept away by flood waters. People were rescued from flooding creeks and streams, and a bowling alley was flooded with eight feet of water.										
Wayne County	05	0826 EST				0	0	4	C	Hail
One inch diameter hail fell during a thunderstorm at Marshallville.										
Hamilton County	05	1100 EST				0	2	0	0	Lightning
Lightning struck two men standing at an age/weight guessing booth at Kings Island Amusement park.										
Ottawa and Sandusky Counties	05	1346 - 1415 EST				0	0	4	0	Hail
A thunderstorm produced large hail as it crossed these counties. One inch diameter hail fell in western Sandusky County at 1346 EST. Golfball sized hail fell in the Fremont area at 1400 EST, while 3/4 inch hail fell in Oak Harbor at 1407 EST.										
Highland County	05	1430 EST				0	0	4	0	High Wind
A thunderstorm downed trees and damaged farm outbuildings in Greenfield.										
Toledo, Lucas County	05	1445 EST				0	0	4	0	High Wind
Thunderstorm winds downed trees and utility lines and caused minor structural damage in many parts of the city.										
Scioto County	05	1500 EST				0	0	4	0	High Wind
A thunderstorm with damaging winds moved through Portsmouth, downing trees and utility lines.										
Perry County	05	1530 EST				0	0	4	0	High Wind
Thunderstorm winds downed trees and unroofed a barn in Glenferd.										
Ashtabula County	05	1635 EST				0	0	4	0	High Wind
A thunderstorm produced wind damage in the central part of the county, especially in its Jefferson area.										
Wyandot County	05	1637 EST				0	0	4	0	Hail, High Wind
A thunderstorm crossed the county and produced one inch diameter hail and wind damage in several areas.										
Clark County	05	1645 EST				0	0	4	0	High Wind
Thunderstorm winds downed trees and lines in the Springfield to South Charleston areas.										

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

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					KILLED	INJURED	PROPERTY	CROPS	
<b>OHIO</b>									
Marion and Morrow Counties	05	1725-1820 EST			0	0	4	0	Hail
		A thunderstorm produced large hail in these counties. Three quarter inch hail was reported in Marion County at 1725 EST, and golfball sized hail fell at Marengo in Morrow County at 1820 EST.							
Trumbull County	06	1132 EST			0	0	4	0	High Wind, Hail
		A thunderstorm produced damaging winds and 3/4 inch diameter hail in Niles.							
Knox County	07	1910 EST			0	0	4	C	Hail
		Golfball sized hail was reported in many parts of the county as a thunderstorm moved through.							
Toledo, Lucas County	08	2215-2245 EST			1	0	4	0	Lightning, High Wind
		A 26 year old man was struck by lightning while standing in his yard. He died 9 hours later. At 2245 EST, the same storm produced wind damage in Toledo.							
Putnam County	09	2217 EST			0	0	4	C	Hail
		Golfball sized hail fell near Miller City.							
Wood County	10	0045 EST			0	0	4	0	High Wind
		A thunderstorm produced wind damage and downed trees in Bowling Green.							
Seneca County	10	0117-0135 EST			0	0	4	0	High Wind
		A thunderstorm with 60mph winds produced wind damage in Tiffin at 0117 EST, and in the Republic area at 0130 EST.							
Lorain County	10	0130 EST			0	0	6	0	High Wind, Lightning
		A thunderstorm produced 50 to 60mph winds in the city of Lorain. Trees and lines were downed. Lightning strikes started several fires. A North Ridgeville lumber yard burned, with over \$500,000 damage.							
Paulding and Van Wert Counties	10	0145 EST			0	0	4	0	High Wind
		A severe thunderstorm moved along the border of these counties. Wind damage was reported in Convo and Payne.							
Ashland and Richland Counties	10	0150 EST			0	0	5	0	High Wind
		Thunderstorm winds caused structural damage and downed trees in the northern part of these counties. A mobile home was overturned and destroyed in Ashland County. Wind damage was reported in Shiloh in Richland County.							
Huron County	10	0155 EST			0	0	5	0	High Wind, Hail
		A thunderstorm produced large hail and damaging winds from Bellevue to Fitchville. Winds were 60 to 70mph, and hail as large as golf balls.							
Wayne County	10	0230 EST			0	0	5	0	High Wind, Lightning
		A thunderstorm produced damaging winds and frequent lightning. Trees were downed and buildings damaged in Wooster, Orville, and Rittman. Lightning struck and killed 11 cows near Tittman.							
Crawford County	10	0233 EST			0	0	4	0	High Wind
		Thunderstorm winds downed trees in Bucyrus.							
Scioto and Gallia Counties	10	0530 EST			0	0	4	C	Hail
		Three quarter inch diameter hail fell in both of these counties as a thunderstorm moved through.							
Lawrence County	10	1230 EST			0	0	3	0	Hail
		A thunderstorm produced 3/4 inch diameter hail in Arabia.							
Ashtabula County	14	1007 EST			0	0	4	0	High Wind
		Thunderstorm winds downed trees and damaged buildings in Austinsburg.							

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<b>OHIO</b>									
Union County	14	1420 EST			0	0	4	C	Hail
		Golf ball sized hail damaged crops and automobiles in the Raymond area.							
Delaware County	14	1445 EST			0	0	4	0	Hail, High Wind
		A thunderstorm produced damaging winds and one inch diameter hail along I-71, five miles north of I-270.							
Licking County	14	1555 EST			0	0	3	0	Hail
		One inch diameter hail fell north of Buckeye Lake.							
Wood County	14	1600 EST			0	2	4	0	High Wind
		A thunderstorm with 60mph winds caused damage in Bloomdale. Two people were injured when a large carnival tent was blown down.							
Cochocoton County	14	1630 EST			0	0	4	0	High Wind
		60mph winds damaged trees and utility lines in the central part of the county.							
Hancock County	14	1630 EST			0	0	4	0	High Wind
		A thunderstorm with 50 to 60mph winds damaged trees and damaged buildings in Van Buren.							
Fairfield County	14	1650 EST			0	0	3	0	Hail
		Three quarter inch diameter hail fell in Millersport.							
Morgan County	14	1750 EST			0	0	4	0	High Wind
		A thunderstorm with 60 mph winds caused damage throughout the county.							
Union County	14	1910 EST			0	0	4	0	High Wind
		Thunderstorm winds estimated at 60 mph caused wind damage at Jerome.							
Delaware and Franklin Counties	14	1930 EST			1	0	4	0	High Wind
		Thunderstorm winds caused considerable damage in the southern part of Delaware county and in Franklin county. A limb fell on a 17 year old girl riding her bicycle, and killed her.							
Licking County	14	2015 EST			0	0	4	0	High Wind
		A thunderstorm downed trees and lines at Fallsburg.							
Champaign County	14	2130 EST			0	0	4	0	High Wind
		A severe thunderstorm damaged a church and downed trees in Urbana.							
Washington County	14	2200 EST			0	0	5	0	Flash Flood
		Five to six inches of rain fell in Belpre in less than 3 hours. This caused considerable flash flooding of small creeks and streams. Mudsides closed and damaged roads.							
Erie County	15	1500 EST			0	0	4	0	High Wind
		Severe thunderstorms moved into the county off Lake Erie. This storm caused wind damage at Bay View and Vermilion.							
Lorain County	15	1540 EST			0	0	4	0	High Wind
		Thunderstorm winds caused damage in the western part of the county.							
Fairfield County	21	1700 EST			0	0	5	0	High Wind
		A thunderstorm caused wind damage to farm buildings and a church, and downed trees and lines.							
Warren County	31	1100 EST			0	2	0	0	Lightning
		Lightning struck and injured a couple while they were unloading firewood from a pickup truck. The man was 48, and the woman 47 years old.							

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JULY 1985

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					KILLED	INJURED	PROPERTY	CROPS	

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	

**34 OKLAHOMA**

Lequire, Haskell County	02	1450CST			0	0	?	?	Hail
Hail 1/2 to 3/4 inch size fell.									
Hugo, Choctaw County	02	1645CST			0	0	?	?	Hail
Hail the size of golfballs fell just east of Hugo.									
Millerton, McCurtain County	02	1705CST			0	0	?	?	Wind
A thunderstorm produced strong winds that downed many power lines and uprooted trees.									
Idabel, McCurtain County	02	1720CST			0	0	?	?	Hail/Wind
3/4 to 1 inch size hail fell with strong winds.									
Newkirk, Kay County	04	1940CST			0	0	?	?	Wind
A thunderstorm produced 60 mph winds which downed power lines and uprooted several trees.									
Kaw City, Kay County	04	1950CST			0	0	?	?	Hail
3/4 inch size hail fell.									
Blackwell, Kay County	04	2022CST			0	0	?	?	Hail/Wind
Golfball size hail fell and 60 to 70 mph winds occurred in and around Blackwell.									
Burbank, Osage County	04	2022CST			0	0	?	?	Hail
Golfball size hail fell near Burbank.									
Tulsa, Tulsa County	04	2030CST			0	0	?	?	Wind/Hail
A thunderstorm produced strong winds which damaged trees and several roofs. Marble size hail also fell.									
Braman, Kay County	04	2035CST			0	0	?	?	Hail
3/4 inch size hail fell.									
Tonkawa, Kay County	04	2040CST			0	0	?	?	Hail
Golfball size hail fell.									
Sand Springs, Tulsa County	04	2115CST			0	0	?	?	Wind
A thunderstorm produced strong winds which leveled one wall of a store and downed several large trees and power lines.									
Marland, Noble County	04	2135CST			0	0	?	?	Hail
Hail the size of half dollars fell 3 miles west of town.									
Kiefer, Creek County	04	2145CST			0	0	?	?	Wind
A thunderstorm produced strong winds which destroyed a car wash. The wind also downed many trees and power lines.									
Glenpool, Tulsa County	04	2200CST			0	0	5	?	Lightning/Wind
Lightning caused a house to burn, valued at \$50,000. Winds of 50 to 60 mph also occurred, which unroofed a building and downed power lines and large tree limbs.									
Henryetta, Okmulgee County	04	2205CST			0	0	?	?	Wind
A thunderstorm produced 70 mph winds, downed some power lines and did considerable damage to trees.									
Wellston, Lincoln County	04	2248CST			0	0	?	?	Wind
A thunderstorm produced 71 mph winds.									
Jones, Oklahoma County	04	2315CST			0	0	?	?	Wind
A thunderstorm produced strong winds which uprooted several large trees and damaged many others just south of Jones in the Rolling Oaks area.									
Little Axe, Cleveland County	05	0000CST			0	0	?	?	Hail
Hail the size of nickles fell 3 miles northeast of Little Axe.									

**OKLAHOMA**

Daisy, Atoka County	10	1600CST			0	0	?	?	Hail
Golfball size hail fell 4 miles north of Daisy.									
Daisy, Atoka County	10	1628CST			0	0	?	?	Hail
Hail the size of nickles fell 4 to 5 miles west of Daisy.									
Stringtown, Atoka County	10	1650CST			0	0	?	?	Hail
Golfball size hail fell 5 miles north of Stringtown.									
Cairo, Coal County	10	1700CST			0	0	?	?	Hail
Baseball size hail fell near Cairo.									
Coalgate, Coal County	10	1738CST			0	0	?	?	Hail
3/4 inch size hail fell.									
Apache, Caddo County	15	1410CST			0	0	5	?	Wind
A thunderstorm produced strong winds which took the roofs off of 6 units of a motel. Many roofs received minor damage. Damage estimated at \$110,000.									
Anadarko, Caddo County	15	1500CST			0	0	?	?	Wind
A thunderstorm produced 60 mph winds which downed many trees and power lines.									
Nicom Park, Oklahoma County	15	1545CST			0	0	?	?	Hail/Wind
Hail the size of nickles fell and 50 to 60 mph winds occurred.									
Tuttle, Grady County	15	1549CST			0	0	?	?	Wind
A thunderstorm produced 60 mph winds 6 miles southwest of Tuttle.									
Union City, Canadian County	15	1710CST			0	0	?	?	Hail
3/4 inch size hail fell 4 miles west of Union City.									
Mustang, Canadian County	15	1715CST			0	0	?	?	Hail
3/4 inch size hail fell.									
Asher, Pottawatomie County	15	1745CST			0	0	?	?	Hail/Winds
Hail the size of quarters fell and 50 to 60 mph winds occurred 3 miles north of Asher.									
Bowlegs, Seminole County	15	1745CST			0	0	?	?	Wind
A thunderstorm produced 60 to 70 mph winds.									
Lawton, Comanche County	16	Evening			0	2	0	0	Lightning
Lightning struck two boys while playing baseball. It appears that a metal bat was being used and drew the lightning bolt.									
Laverne, Harper County	19	1715CST			0	0	4	?	Wind
A thunderstorm produced winds clocked at 70 mph. A mobile home was destroyed, a roof was taken off of a barn, and many trees and power-line poles were downed. Damage estimated at \$40,000.									
Antlers, Pushmataha County	20	1500CST			0	0	4	?	Lightning
Lightning caused a house to catch on fire, with about \$20,000 damage.									
Oklahoma City, Oklahoma County	24	2215CST			0	0	?	?	Wind
A thunderstorm produced 50 to 60 mph winds in northwest Oklahoma City, downing several large trees, and power lines.									
Mannford, Creek County	27	0950CST			0	0	4	?	Lightning
Lightning caused a house to burn 3 miles west of Mannford. Damage set at \$40,000.									
Lambert, Alfalfa County	31	1630CST			0	0	?	?	Hail
3/4 inch size hail fell near Lambert.									



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

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					KILLED	INJURED	PROPERTY	CROPS	
<b>OKLAHOMA</b>									
Dacoma, Woods County	31	1630CST			0	0	5	?	Wind
		A thunderstorm produced 70 mph winds along with pea size hail. Three inches of rain also fell in a 45 minute period. Two mobile homes were damaged, as well as many trees downed. Many store front windows were cracked, as well as many roofs damaged. Damage estimated at \$75,000.							
Avard, Woods County	31	1700CST	Short Narrow		0	0	0	0	Tornado (F0)
		A tornado briefly touched down 5 miles southeast of Avard, causing no damage.							
Waynoka, Woods County	31	1710CST			0	0	?	?	Hail
		Hail up to 1 1/2 inches fell near Waynoka.							
Waynoka, Woods County	31	1730CST			0	0	?	?	Hail
		One inch size hail fell 2 miles east and 3 miles north of Waynoka.							
<b>35 OREGON</b>									
Eastern Oregon	07	PM			0	0	0	5	Lightning
		Lightning touched off 40 forest and range fires which burned more than 27,000 acres.							
Jackson and Josephine Counties	28	PM			0	0	0	4	Lightning
		80 small forest fires were ignited by a vigorous lightning storm.							
Maleur County	29	PM			0	0	0	2	Wind
		Strong winds caused power outages due to downed lines. 5900 people were without electricity for 25 minutes.							
Maleur County	30	PM			0	0	2	2	Flooding
		Slow-moving thunderstorms accompanied by heavy rainfall caused some local low land flooding.							
<b>36 PENNSYLVANIA, Eastern</b>									
Glenn Rock, York County	03	1600 to 1800 EST			0	0	4	0	Lightning
		A woodworking shop was destroyed by a lightning-caused fire.							
Lackawanna County	03	1620 EST			0	0	2	0	Hail
		Hail 1-1/2 inch in diameter was reported.							
Campbelltown, Lebanon County	03	2300 EST			0	0	4	0	Lightning
		A church steeple was badly damaged by a lightning-caused fire.							
Montgomery County	08	1440 EST			0	0	4	0	Lightning
		A lightning-caused fire resulted in considerable damage to a house.							
York County	08	1950 EST			0	0	2	0	Wind
		High wind gusts downed trees.							
<b>PENNSYLVANIA, Eastern</b>									
Montgomery and Philadelphia Counties	08	2000 to 2100 EST			0	0	4	0	Lightning
		Lightning damaged a house in Upper Providence Township, Montgomery County, but caused no fire. A lightning-caused fire damaged a church in Philadelphia.							
Susquehanna County	09	1835 EST			0	0	2	0	Hail
		Hail up to 1 inch diameter was reported.							
Carbon County	09	1855 EST			0	0	3	0	Wind
		Wind gusts destroyed several outbuildings and uprooted numerous trees.							
York County	10	1215 EST			0	0	5	0	Lightning
		Lightning caused a fire that destroyed a large barn near New Park.							
Huntingdon County	12	1800 EST			0	0	4	0	Hail, Wind
		Damaging winds brought down trees and caused some property damage. Hail was also reported, with 1/2 to 1 inch hail at Huntingdon.							
Fulton County	12	1905 EST			0	0	3	0	Wind
		Strong wind gusts brought down trees.							
Luzerne and Lackawanna Counties	12	1930 to 2000 EST			0	0	3	0	Wind, Hail
		Strong wind gusts brought down trees and caused minor property damage. In Luzerne County, 1 inch hail was reported in Ross Township and 1/2 inch hail at Sweet Valley.							
Perry County	12	1940 EST			0	0	3	0	Wind
		Wind gusts brought down trees and utility lines.							
Adams County	12	2115 EST			0	0	3	0	Wind
		Wind gusts brought down numerous trees.							
Monroe County	12	2201 EST			0	0	3	0	Wind, Hail
		Damaging winds and large hail were reported.							

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

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					KILLED	INJURED	PROPERTY	CROPS	

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					KILLED	INJURED	PROPERTY	CROPS	

## — PENNSYLVANIA, Eastern

Lehigh County	14	1840 EST			0	0	3	0	Wind
Wind gusts up to 50 to 60 MPH uprooted trees.									
Northampton County	14	1852 EST	.75	660	0	0	3	0	Tornado (F0)
A tornado touched down briefly and caused only minor damage. FPP004									
Berks County	14	1920 EST			0	0	3	0	Wind
High wind gusts uprooted trees and caused numerous power outages.									
Chester and Montgomery Counties	15	2230 to 2330 EST			0	1	5	0	Lightning
In Montgomery County, a lightning-caused fire destroyed a barn in Limerick Township; and in Lower Providence Township, lightning hit a house chimney and falling bricks damaged two vehicles. In Phoenixville, Chester County, a teenage boy was struck by lightning.									
Hampton, Adams County	22	1550 EST			0	0	4	0	Lightning
A lightning-caused fire destroyed a barn.									
New Bridgeville, York County	25	1730 EST			0	0	4	0	Wind
Strong wind gusts destroyed a small barn and damaged siding and roofing on other farm buildings.									
Luzerne County	26	1655 EST			0	0	3	0	Wind
Strong wind gusts caused some property damage and also downed trees.									
Lebanon, Lebanon County	26	1815 EST			0	0	6	0	Lightning
A lightning-caused fire severely damaged a five-story building housing a formal wear business. About 10,000 tuxedos were lost in the fire.									
Upper Allen Township, Cumberland County	31	1330 EST	03	20	0	0	5	3	Tornado (F1)
A tornado touched down sporadically along a 3-mile path ending at the village of Grantham. A barn was destroyed and 12 vehicles and buildings had minor to moderate damage. Trees were uprooted and broken off, with some falling on houses. FPP111									

## — PENNSYLVANIA, Eastern

Lancaster County	31	1505 EST	03	20	0	2	5	3	Tornado (F2)
A tornado moved along a 3-mile path starting at Manheim and traveling east toward Lititz. The tornado destroyed two, nearly completed, new homes under construction. Two of the construction workers working on the homes were injured. One was injured seriously. The tornado also damaged at least 5 other homes, several warehouses and other commercial buildings and cut a path through some crops. Trees, vehicles, fences and other small structures were also damaged. FPP211									
Philadelphia, Philadelphia County	31	1710 to 1745 EST	1.5	20	0	1	3	0	Tornado (F1), Winds, Funnels
Thunderstorms rumbling across the Germantown section of Philadelphia produced tornadoic and straight-line winds of 70 to 90 MPH. Several funnel clouds were sighted, one definitely touching down in at least 3 locations. Most of the damage was to large trees twisted off, snapped off or uprooted. There also was some damage to street light poles, houses and to the Germantown Cricket Club. The thunderstorms also produced heavy rain of up to 4 inches which caused street flooding and flooding of small urbanized streams. One man was drowned after he was swept into a small stream.									

## 36 PENNSYLVANIA, Western

Butler (Butler County)	05	1935 - 2035 EST			0	0	0	0	Thunderstorm
Wind from thunderstorm downed power lines and trees in Chicora, Valencia, Kepples Corners, Summit, Jefferson, Middlesex, and Adams Townships.									
Cambria County	08	1540 EST			0	0	0	0	Hail
Hail 1 inch in diameter at South Fork, St. Michaels, and Salix.									
Bedford County	08	1630 EST			0	0	2	0	Lightning
House set on fire at Lovely, northwest of Pleasantville. Little damage.									
Butler (Butler County)	08	1630 EST			0	0	0	0	Thunderstorm
Large trees felled by wind from thunderstorms.									
Butler (Butler County)	08	1645 EST			0	0	0	0	Hail
Hail 3/4 inch in diameter at Butler.									
Springhope (Bedford County)	08	1650 EST			0	0	3	0	Lightning
Barn destroyed when struck by lightning and set on fire.									
Latrobe (Westmoreland County)	08	1755 EST			0	0	0	0	Hail
Hail 3/4 inch in diameter at Latrobe.									
McCandless (Allegheny County)	08	1820 EST			0	0	0	0	Thunderstorm
Large trees blown down by wind during thunderstorm.									
Oakmont (Allegheny County)	08	1820 EST			0	0	0	0	Hail
Hail 1 inch diameter at Oakmont.									
Greensburg (Westmoreland County)	08	1833 EST			0	0	0	0	Hail
Hail 3/4 inch at Greensburg.									
Greensburg (Westmoreland County)	08	1845 EST			0	0	?	0	Flood
Sewickley Creek out of bank due to heavy rain. Basement and street flooding in Greensburg.									
Donegal (Westmoreland County)	08	1850 EST			0	0	0	0	Hail
Hail 1 inch in diameter at Donegal.									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

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					KILLED	INJURED	PROPERTY	CROPS	

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	

## — PENNSYLVANIA, Western

Greensburg (Westmoreland County)	08	1905 EST			0	0	0	0	Hail
Hail 3/4 inch in diameter at Greensburg.									
Somerset (Somerset County)	08	1912 EST			0	0	0	0	Thunderstorm
Trees and power lines down along Rt. 314, 4 miles west of Somerset due to wind during thunderstorm.									
Fox Chapel (Allegheny County)	08	1930 EST			0	0	0	0	Hail
Hail 1 inch in diameter at Fox Chapel.									
Ursina (Somerset County)	08	1945 EST			0	0	0	0	Thunderstorm
Large trees down due to thunderstorm winds.									
Bullskin Township (Fayette County)	08	2010 EST			0	0	3	0	Thunderstorm
Roof blown off house during thunderstorm. Trees also downed.									
Westmoreland County	08	2010 EST			0	0	?	0	Flood
One and a half to two inches of rain fell in Westmoreland County since 1730 EST. Streams out of banks; serious basement flooding in Greensburg, Latrobe, Ligonier, and Mount Pleasant. Jacobs and Indian Creeks out of banks.									
North Huntingdon Township (Westmoreland County)	08	2015 EST			0	0	0	0	Hail
Hail 3/4 inch in diameter in North Huntingdon Township.									
Seven Springs (Fayette County)	08	2035 EST			0	0	0	0	Hail
Hail 2 inches in diameter at Seven Springs.									
Mount Pleasant (Westmoreland County)	08	2210 EST			0	0	4	0	Thunderstorm
Roof blown off hangar during thunderstorm; one plane destroyed.									
Harmarville (Allegheny County)	08	2350 EST			0	0	0	0	Hail
Hail 3/4 inch in diameter at Harmarville.									
Latrobe (Westmoreland County)	08	2400 EST			0	0	?	0	Thunderstorm
Power lines down due to winds estimated at greater than 50 mph during thunderstorm.									
Irwin (Westmoreland County)	09	0055 EST			0	0	0	0	Hail
Hail 3/4 inch in diameter at Irwin.									
Erie County	09	0105 EST			0	0	0	0	Hail
Hail 1 inch in diameter in Erie County.									
Erie County	09	0130 EST			0	0	0	0	Hail
Hail 1 3/4 inch in diameter in Erie County.									
Cabot (Butler County)	09	0230 EST			0	0	?	0	Flood
Water from two dams had to be released to private lake when they began to overflow.									
Warren County	09	0230 EST			0	0	0	0	Thunderstorm
Large trees blown down into power lines during thunderstorm, causing power outages in the county.									
Forest County	09	0235 EST			0	0	0	0	Thunderstorm
Trees blown down during thunderstorms in western part of county.									
Westmoreland County	09	0500 EST			0	0	4	0	Flood
Five inches of rain fell during thunderstorms since 1730 EST the previous day. Hardest hit towns were Greensburg, Mt. Pleasant, New Kensington, and Jeannette; rivers out of banks and much street and basement flooding.									
Cresson (Cambria County)	09	1600 EST			0	0	0	0	Hail
Hail 1 inch in diameter at Cresson.									
Economy (Beaver County)	10	0400 EST			0	0	0	0	Thunderstorm
Large branches down from thunderstorm winds.									
Allegheny County	10	0400 -0430 EST			0	0	0	0	Thunderstorm
Trees down in Fox Chapel, Mt. Lebanon, North Hills and Bakerstown.									

## — PENNSYLVANIA, Western

Midway (Washington County)	10	0400 -0430 EST			0	0	0	0	Thunderstorm
Trees down in Midway from thunderstorm winds.									
Washington County	10	0420 EST			0	0	0	0	Hail
Hail 3/4 inch in diameter at Washington Airport.									
Westmoreland and Fayette Counties	10	0500 -0600 EST			0	0	4	0	Flood
One inch rainfall caused basement and poor drainage flooding.									
Jenners (Somerset County)	12	1630 EST			0	0	0	0	Hail
Golf ball size hail at Jenners; also trees downed.									
Sharon (Mercer County)	14	0735 EST			0	0	0	0	Flood
Two inches of rain fell in one hour.									
Shenango (Mercer County)	14	0850 EST			0	0	0	0	Flood
Two and a half inches of rain fell in two hours.									
Tidioute (Warren County)	14	1010 EST			0	0	0	0	Funnel Cloud
Funnel cloud reported by pilot west of Tidioute.									
Greenville (Mercer County)	14	1023 EST			0	0	0	0	Funnel Cloud
Funnel cloud in southeast Mercer County near Greenville.									
Grove City (Mercer County)	14	1045 EST			0	0	0	0	Funnel Cloud
Funnel cloud sighted by public at Grove City.									
Mercer and Venango Counties	14	1045 EST			0	0	0	0	Funnel Cloud
Funnel cloud near Greenville and in Venango County before noon.									
New Lebanon (Mercer County)	14	1050 EST			0	0	0	0	Funnel Cloud
Funnel cloud sighted by public near New Lebanon.									
Butler County	14	1130 EST			0	0	0	0	Thunderstorm
Trees downed by thunderstorm winds at Slippery Rock and Eau Claire.									
Sligo (Clarion County)	14	1150 EST			0	0	0	0	Hail
Hail 3/4 inch in diameter near Sligo.									
New Bethlehem (Clarion County)	14	1200 EST			0	0	0	0	Funnel Cloud
Funnel cloud sighted near New Bethlehem.									
Bakersville (Somerset County)	14	1215 EST			0	0	0	0	Thunderstorm
Trees downed by thunderstorm winds.									
Springboro (Crawford County)	14	1230 EST			0	0	4	0	Lightning
Woodworking business struck by lightning and burned to ground, 4 miles east of Springboro. Tree limbs and power lines down.									
Fayette County	14	1530 EST			0	0	0	0	Thunderstorm
Trees downed by thunderstorm winds between Uniontown and Dunbar.									
Lower Burrell (Westmoreland County)	14	2030 EST			0	0	4	0	Thunderstorm
Two apartment buildings lost roof during thunderstorm at Highland Terrace. Several hundred people evacuated. Sixty to seventy homes had five feet of water in the basement.									
Westmoreland County	15	Overnight.			0	0	4	0	Flooding
Five inches of rain overnight in 12 hour period. Forty-five thousand homes without power. Flooding in New Kensington, Monroeville, Plum, Tarentum and East Deer.									
Westmoreland County		0100 -0200 EST			0	0	4	0	Flooding
One hundred residents of western Jeannette were evacuated when Brush Creek overflowed. Two and a half feet of water on first floors of homes. One hundred residents of New Stanton also evacuated. Turtle Creek at Murrysville wiped out Mill Street bridge off of route 22. Bull Creek also overflowed, closing streets in Tarentum and Fawn Townships. Some residents evacuated by boat.									
Fayette County	15	Overnight			0	0	0	0	Flooding
Mill Run Creek overflowed, stranding 80 children at camp. Children evacuated by morning.									

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<b>— PENNSYLVANIA, Western</b>									
Butler County	15	Overnight			0	0	0	0	Flooding
									Connoquenessing Creek overflowed, closing roads, especially in Butler.
Clearville (Bedford County)	30	2000 EST			0	0	0	0	Thunderstorm
									Two inches of rain fell in one hour.
<b>37 RHODE ISLAND</b>									
Newport, Newport County	22	0345EST			0	0	2	0	Lightning
									A house was struck by lightning, knocking some plaster off the walls and resulting in an undetermined amount of damage. Several hundred electric customers lost power in Barrington as thunderstorms moved through that area.
<b>38 SOUTH CAROLINA</b>									
Rock Hill, York County	10	2210EST			0	0	3	0	Wind, Hail
									Thunderstorm accompanied by strong winds and marble size hail caused power outages; some trees blown on roofs and cars in two portions of Rock Hill.
Sumter, Sumter County	11	0130EST			0	0	4	0	Lightning
									Lightning damaged two homes and caused power outages. One home hit on same date five years ago.
5 mi E Springfield, Orangeburg County	11	1205EST			0	0	2	0	Hail
									Marble size hail reported.
Georgetown, Georgetown County	11	1300EST			0	0	3	0	Flash Flood, Hail
									A thunderstorm, accompanied by hail ¼ inch in diameter and by heavy rains, caused urban flooding and lightning damage. Winds damaged several trees and buildings.
Ward, Saluda County	11	1430EST			0	0	3	0	Wind, Hail
									Trees blown down; small hail covered ground.
Goose Creek, Berkeley County	11	1500EST			0	0	2	0	Hail
									Hail one half inch in diameter.
Ninety Six, Greenwood County	11	1530EST			0	0	3	2	Wind, Hail
									Strong gusty winds, marble size hail, during a thunderstorm caused minor damage.
Near Cherokee Springs, Spartanburg County	12	1800EST			0	0	4	2	Wind
									Barn destroyed in northeast Spartanburg County near Cherokee Springs; also trees and limbs broken. Debris spread over 300 yards, piercing roof of home, cracking windows and damaging carport.
Greenville, Greenville County	13	0115EST			0	0	4	0	Wind
									Thunderstorm winds destroyed several mini-storage buildings between Haywood Road and Municipal Airport.
Georgetown, Georgetown County	13	1230EST			0	0	4	0	Lightning
									Lightning during thunderstorm struck main power transformer, causing large scale power outage and several fires.
Greenwood, Greenwood County	13	pm EST			0	0	3	0	Lightning, Wind
									Thunderstorm winds disrupted power to 2000 customers.
Anderson, Anderson County	14	1530EST			0	0	3	0	Winds
									Thunderstorm winds blew down awnings and limbs and damaged utilities at Autumn Oaks Townhouse.
Near Denmark, Bamberg County	14	1600 EST	2.5	0.5*	0	0	3	5	Hail, Wind
									Hail up to baseball size plus strong winds almost totally destroyed 100 acres of corn and 400 acres of soybeans. Also caused considerable property damage.
Gadsden, Richland County	14	1730 EST			0	0	0	3	Wind
									Winds during a thunderstorm knocked down trees across railroad track.
Aiken, Aiken County	14	1830 EST			0	0	4	0	Lightning
									Lightning struck and burned a seven room home.
Greenwood, Greenwood County	15	2030 EST			0	0	3	0	Wind, Lightning
									Wind and lightning downed a number of trees, disrupting power to 3000 customers.
<b>— SOUTH CAROLINA</b>									
Anderson, Anderson County	16	1530EST			0	0	4	0	Wind
									Thunderstorm blew down trees in seven parts of city, causing widespread disruption to power and traffic.
Fort Mill, York County	16	1755EST			0	0	3	0	Hail
									One inch hail reported.
Woodruff, Spartanburg County	22	1618EST			0	0	3	0	Hail, Lightning
									Golfball size hail and strong thunderstorm winds caused considerable damage. Lightning set two homes afire; power outages to 2000 customers.
Bamberg, Bamberg County	22	1625EST			0	0	3	0	Hail, Wind
									Golfball size hail covered ground; trees down.
Anderson, Anderson County	24	0130 EST			0	0	3	0	Lightning
									Lightning struck chimney of McDuffie School, causing considerable damage.
Eastern, S.C. ; Beaufort, Colleton, Dorchester, Charleston, Berkeley, Williamsburg, Georgetown, Horry and Marion Counties.	24-25				0	0	7	5	Hurricane, Wind, Rains, High Tides
									Hurricane Bob moved northward from a position several hundred miles east of the Florida-Georgia line early on the 24th, entering S.C. near Fripp Island about 2130 EST. Heavy rains caused more damage than the winds and tides. The storm continued to move northward, entering eastern N.C. on the morning of the 25th. There were limbs and trees down from Colleton County to Horry County. Winds of 40 to 60 mph with higher gusts buffeted portions of eastern S.C. A moored houseboat sank at Charleston, and trees were blown on cars at Folly Beach, Charleston, Surfside, Myrtle Beach, Loris and elsewhere along path of storm. Winds and heavy rains damaged tobacco in Horry, Marion and Georgetown Counties. Surfside was particularly hard hit with flooding covering streets and water entering some homes. Also, at Surfside a restaurant was deroofed and a shopping center flooded. Many car windows were broken by falling limbs. At Folly Beach, the winds blew the top off a service station. A new building in southern Myrtle Beach was damaged by wind. Tides ran mostly one to three feet above normal, causing moderate beach erosion mostly north of Fripp Island to Horry County. A building was undermined by erosion at Surfside Beach. Total insured damage from Bob was about five million dollars. There were 8,500 residents evacuated at Myrtle Beach. Power loss was widespread along path of the storm.
Bamberg, Bamberg County	26	pm			0	1	0	0	Lightning
									The first bolt of lightning from a newly formed thunderstorm struck a golfer at the Paw Paw Country Club and knocked him unconscious.
Charleston, Charleston County	28	1200/1400EST			0	0	4	0	Flash Flooding
									Rains, measured at Custom House as 2½ inches in about 60 minutes but probably heavier in other parts of the city, caused water several feet deep on some streets, including U.S. 17 crosstown. Water entered some buildings, stopped traffic and contributed to many "fender benders".
Sumter, Sumter County	29	pm			0	0	3	0	Flash Flooding
									Flash flooding caused by heavy thunderstorm rain flooded streets and entered several buildings.
Salem, Oconee County	30	1845EST			0	0	2	0	Wind
									Thunderstorm winds knocked down several trees.
North Lake Hartwell, Anderson County	31	pm			0	0	3	0	Wind
									Several trees down.

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<b>39 SOUTH DAKOTA</b>									
Brown County	01	1330 CST			0	0	5	0	Wind
									Strong winds one mile south of Warner lifted a garage off its foundation and dropped it atop a trailer home, demolishing both. A second trailer was tipped over and another garage's rear wall was curved outward.
Brown & Spink Counties	01	1400 CST			0	0	?	?	Hail
									One and three-quarters inch diameter hail caused extensive crop damage in a narrow strip from Mansfield (Brown County) southeast to Ashton (Spink County). Crop losses ranged from light to heavy. Several homes were pitted by the hail and hail covered the ground in some areas. Numerous branches were felled.
Faulk County	01	1410 CST			0	0	0	3	Hail
									Hail, one half inch in diameter, caused minor damage to crops just south of Chelsea.
Tripp County	01	1830 CST			0	0	?	?	Hail
									Hail, one-quarters inch to one and one-half inches in diameter, extensively damaged crops in a one to two mile strip from west of Colome eastward, and also around Winner. Hail piled up to three feet in ditches, draws and drainages, and up to one foot deep on roads. Small grain was completely destroyed and paint was chipped off several homes.
Stanley County	01	1900 CST			0	0	4	0	Wind
									Strong winds demolished a 14' x 70' trailer home in eastern Stanley County. A woman inside the trailer was blown fifteen feet away. Some tin was blown off a roof at a nearby ranch.
Harding County	02	0630 CST			0	0	2	0	Lightning
									Lightning hit the belfry and cross on a church in Camp Crook, resulting in minor interior damage.
Walworth County	02	1617 CST			0	0	?	?	Hail
									Hail, ranging from a quarter inch to one and three-quarters inch in diameter, hit an area from five miles southeast to ten miles east of Mobridge. The hail was accompanied by heavy rains.
Sully County	02	1715 CST			0	0	?	?	Hail
									Extensive hail of unknown size fell in western portions of the county.
Buffalo, Brule and Lyman Counties	02	1800 CST			0	0	?	?	Hail
									Hail hit both sides of the Missouri River north of Chamberlain and lasted nearly ten minutes. Over 1,000 acres of crops were severely damaged, with losses ranging from 20 to 100 percent. Up to one and one-half inches of hail were on the ground south of Fort Thompson, and Lower Brule was hit hard by the hail. Several motor homes were dented and numerous shingles were damaged.
Faulk County	02	1804-1824 CST			0	0	?	?	Hail
									One and three-quarters inch diameter hail fell in Faulkton. Three miles west of Faulkton, hail covered the ground.
Faulk County	02	1845 CST			0	0	0	0	Funnel Clouds
									Several funnel clouds were reported eight miles south of Faulkton.
Lyman County	02	1930-1940 CST			0	0	?	?	Hail
									Small hail fell north of Presho, damaging 40-50 percent of the wheat crop. A rancher, three miles west and six miles north of Presho, was completely hailed out. Crop damage north of Presho was extensive in scattered areas and drifts of hail were piled along the ditches.
Jones County	02	1940 CST			0	0	?	?	Hail
									Thunderstorms dumped large amounts of quarter inch diameter hail throughout the county, causing considerable damage to crops.
Stanley County	02	2002 CST			0	0	?	?	Hail
									Thunderstorms produced extensive amounts of hail over parts of western Stanley County.
Douglas County	03	1500 CST			0	0	?	?	Hail
									Hail hit an area three miles wide from five miles south of Corsica southeast to three miles south of Armour. Over 2,500 acres were affected, with crop losses up to 100 percent reported.
Turner County	03	Evening			0	0	0	?	Hail
									Small hail damaged crops from east of Freeman to Hurley to Parker.

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
<b>— SOUTH DAKOTA</b>									
Edmunds County	06	1715 CST			0	0	0	?	Hail
									Ten miles east of Hosmer, half-inch diameter hail covered the ground. Ipswich reported crop damaged from half inch diameter hail.
Custer County	07	1300 CST			0	0	0	0	Lightning
									A lightning fire burned a tenth of an acre, eight miles southeast of Custer.
Custer County	07	1505 CST			0	0	4	0	Dust Devil
									A dust devil moved through a campground just south of Hermosa, tearing the roof from a building and resulting in a fire.
Butte County	07	1830 CST			0	0	0	0	Dust Devil
									A dust devil at Belle Fourche scattered 4' x 8' metal sheets over a half-mile area.
Todd & Tripp Counties	08	0200-0600 CST			0	0	0	0	Lightning
									Lightning started over twelve grassfires in southern Todd and Tripp counties, with at least nine fires in Todd County. The largest fire burned 250 acres, 18 miles west of Winner (Tripp County).
Lyman County	08	0300 CST			0	0	4	0	Lightning
									Lightning started a fire, five miles west and four miles north of Presho. Very little grass was burned, a truck and combine were destroyed and a second combine was damaged.
Fall River County	12-19	0830 CST			0	0	0	0	Lightning
									Lightning started and dry conditions enhanced what turned out to be the largest fire in the history of the Black Hills National Forest in central portions of the county. The fire, known as the Flint Hills Fire, burned 22,000 acres of mostly private land.
Fall River County	12-19	1200 CST			0	0	0	0	Lightning
									Lightning started what became known as the Seven Sisters Fire midway between Hot Springs and Edgemont. Dry conditions helped spread the fire to a total of 9,600 acres of mostly private land.
Brookings County	14	0930-1000 CST			0	0	?	?	Wind, Hail
									Strong winds gusting to 70 mph and quarter inch diameter hail hit a three mile wide path through three miles north of White, east across Lake Hendricks and into Minnesota. Some crops were severely damaged, 100 trees uprooted and several farms incurred wind and hail damage. A window was broken in one home and two inches of hail remained on the ground in spots for three to four hours. Electricity was out in some areas. On Lake Hendricks, a boat capsized in three to four foot waves and several campers nearby were overturned.
Butte County	15	1130 CST			0	0	0	0	Lightning
									Lightning hit two miles south of Highway 34, southwest of Belle Fourche. The resulting fire started up the following day, burning three acres of grass, pine needles and tree trunks.
Pennington County	15	1805-1845 CST			0	0	?	?	Hail
									Hail, one and three-quarters inch in diameter, fell five miles west of Rapid City. Small hail covered a highway twelve miles west of Rapid City.
Pennington County	15	2025 CST			0	0	?	?	Hail
									One and one-half to two and one-half inch diameter hail fell three and one-half miles southeast of Rockerville, southwest of Rapid City. Heavy rains of 2½ inches fell in 40 minutes.
Lyman County	16	1515 CST			0	0	4	3	Thunderstorms
									A thunderstorm hit Kennebec, replete with gusts to 60 mph and hail up to one and three-quarters inches in diameter. Hail covered the ground and damaged several vehicles. Numerous branches were felled by winds and crops incurred minor damage from hail. In a twenty minute period, 1.10 inches of rain fell.
Tripp County	16	1603-1730 CST			0	0	?	?	Thunderstorms
									A majority of the county experienced hail and strong winds. The hail hit an area from Ideal, south to Clearfield and Millboro. Hail, up to two and three-quarters inches in diameter fell, causing damage to the roofing and gutturing of several homes north of Winner. Some windows were broken in a home twenty miles south of Winner. Strong winds, one and one-half miles southeast of Millboro, ripped the roof from a shed, blowing the roof into another barn, a silo and finally a trailer home, which incurred extensive damage. Some water covered the road for a short period of time, four miles northeast of Winner. This was the result of heavy rains.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
<b>— SOUTH DAKOTA</b>									
Hand County	16	1658-1704 CST			0	0	5	4	Hail, Flash Flood
	A severe hailstorm caused extensive property damage from one mile north to ten miles south of Miller. The one and three-quarters inch diameter hail stripped branches, damaged over forty cars and totaled two of them, broke several windows in homes and incurred serious damage to roofs and shingles. Many roofs were totaled. Numerous gardens were pummeled to nubbins. A car dealer had over \$250,000 in damages. Crop losses averaged 10 percent. Considerable street flooding occurred from heavy rains.								
Brown County	17	1015 CST	short narrow		0	0	0	0	Tornado (F0)
	A National Weather Service employee spotted a tornado twenty miles northwest of Aberdeen, moving northeast.								
Clark County	17	1430 CST	short narrow		0	0	4	0	Tornado (F1)
	A tornado, ten miles east of Raymond, destroyed two cattle sheds and damaged several buildings. Shed doors were damaged and an inside wall was moved slightly, a second shed incurred damage, two fuel tanks were blown over and a wagon box was blown away. An eight-foot roof section was blown up to three-quarters mile away. A garage was moved off its foundation, fencing wiped out, a utility pole was felled causing a power outage, a calf was killed and several other cattle were injured. The farm house had some decking damaged, a window broken resulting in interior damage, and the center of the house on the north side was moved in eight inches.								
Clark County	17	1430 CST			0	0	?	?	Thunderstorm
	Hail and wind damage occurred in an area three miles wide from five miles east-northeast of Raymond to three miles south of Garden City. Heavy rains, strong winds and hail up to two and three-quarters inch diameter produced considerable damage to farm buildings, vehicles and nearly 20,000 acres of which 13,500 acres were cropland. Hail piled up to three feet in areas, remaining in sheltered areas for as long as four days. Rainfall of three to six inches caused additional crop losses from erosion. Some crops were totaled. Along the damage path, a garage was moved on its foundation, several windshields cracked, a few vehicles dented, shingles split or cracked, paint peeled off buildings, windows broke on numerous buildings, and skylights were damaged on some homes. In Clark, some basement flooding occurred and water ran across Highway 212 west of Clark.								
Day County	17	1445 CST	short narrow		0	0	0	0	Tornado (F0)
	A brief tornado was reported five miles south of Roslyn.								
Sanborn County	17	1515 CST			0	0	?	?	Hail
	Hail, ranging from three-fourths inch to two inches in diameter did considerable damage to vehicles, roofs, gardens and crops in Moonsocket. Crop losses ranged from 50 to 100 percent.								
Sanborn County	17	1530 CST			0	0	0	0	Funnel Cloud
	A funnel cloud was sighted in Moonsocket.								
Beadle County	17	1538 CST			0	0	5	?	Thunderstorm
	In Huron, winds gusted to 71 mph, one and three quarters inch diameter hail fell along with 2.3 inches of rain. Branches were downed, as well as some trees, and many vehicles incurred hail damage. Several homes received roof and siding damage from hail. A car window was broken by a felled limb. An apartment complex sustained considerable water damage when a roof drain broke and damaged 18 apartments. Some roads washed out, stalling several vehicles. A small utility building was destroyed by winds and hail. Just northeast of Messington, hail caused minimal crop and property damage.								
Lyman County	17	1540 CST			0	0	4	0	Hail, Wind
	Gusts to 80 mph and small hail hit the Kennebec area. A few trees were uprooted and numerous branches downed. A camper on I-90 overturned, a quonset lost a door and half of the front, a large sign and utility lines were downed and a pole garage was destroyed and turned upside down. Several car windows broke from wind and small hail. A half inch of rain fell in ten minutes, filling ditches.								
Spink County	17	1600 CST			0	0	4	0	Wind, Rain
	Strong winds, three miles east of Redfield, caused extensive damage to a farm. A shed and small granary were destroyed, a hayrack tipped over, 100 feet of fencing ripped up and part of a roof was torn from shed. Heavy rains of 3-5½ inches caused road & basement flooding.								
<b>— SOUTH DAKOTA</b>									
Deuel County	17	1620 CST			0	0	4	6	Thunderstorm
	A damage path from wind and hail ran from Clear Lake to south of Gary and into Minnesota to the east of Canby. Winds gusted to 70 mph and hail ranged from one to one and three-quarters inch diameter. Hail hit in a strip two miles wide, with crop damage ranging from 40-70 percent. Total damage to crops and property were estimated at nearly a million dollars, mostly to crops. In Clear Lake, four businesses were damaged, power poles were downed, a car and tractor were damaged and windows were broken. One building had the fiberglass siding and roofing torn off, a second had its metal roof blown off and a chimney hit, blasting away 5-6 feet of bricks. The bricks landed across the street. Several trees were uprooted, blocking roads. Many gardens were flattened. A bank building downtown was damaged by lightning. Highway 77, south of Clear Lake, was impassable due to hail on the ground.								
Brule County	17	1730 CST			0	0	3	0	Thunderstorm
	An inch of rain fell in 30 minutes, six miles south of Chamberlain. Lightning struck a home in Kimball and went down the TV antenna into attic wiring, causing a smoldering insulation fire. The TV burned out, seven breakers snapped and some insulation was damaged.								
Codington County	17	1805-1840 CST			0	1	?	?	Lightning Flash Flood
	Heavy rains of 7½-8 inches fell over northern parts of the county between South Shore and Florence. Streams came out of their banks causing lowland flooding and the washing out of county roads, with three roads barricaded. In Watertown, water was up to one and one-half feet at some intersections. A girl in Watertown was knocked to the ground by a nearby lightning strike, causing the back of her legs to turn blue and a burning sensation in her feet. A TV nearby was knocked out by the lightning.								
Deuel & Grant Counties	17	1835 CST			0	0	4	0	Lightning, Rain
	A lightning strike around Strandburg (Grant County) killed 16 Holstein cows. Lightning also shattered and downed several utility poles in Grant County between Corona (Roberts County) and Marvin (Grant County) and damaged many others. Power lines were downed around Goodwin (Deuel County). Heavy rains of 4-5½ inches fell in western sections of the county.								
Brown County	17	1840 CST			0	0	0	0	Flash Flood
	Heavy rains, north and northwest of Aberdeen, caused small stream and lowland flooding.								
Pennington County	20	1430 CST			0	1	0	0	Lightning
	Lightning injured and hospitalized a man near Mt. Rushmore. The lightning knocked him down and caused severe headaches and motor reflex problems.								
Brown County	20	Evening			0	0	4	0	Wind
	Strong winds and rain, five miles east of Frederick, caused some damage. Four granaries were moved and a steel building was tossed over some trees to the northwest. Pressure was so great on one home that a woman was unable to close the windows, resulting in minor interior rain damage. Several other nearby farms incurred some outbuilding damage, unrolled hay bales and broken windows.								
Jerauld, Sanborn, Davison, Hutchinson, Bon Homme & Yankton Counties	21	1030-1345 CST			0	0	?	?	Hail
	A hailstorm hit northeast Jerauld County and moved south-southeast to southeast of Tabor (Yankton County). Damage began in Alpena and ended ten miles southeast of Tabor. The hail, ranging from 1 3/4 to 2 3/4 inches in diameter, incurred considerable crop and property damage in a very narrow band. Heaviest damages occurred north and south of Scotland (Hutchinson and Bon Homme Counties) and in Tabor (Bon Homme County). Some crops had up to 75 percent losses, though the average was 10 to 50 percent. Cars in Tabor were pounded and dented, many homes had window and roof damage, gardens were pummeled, shingles cracked and streets were littered with branches and leaves. One building in Tabor received damages of \$10,000. In Scotland, rural buildings were damaged.								
Meade County	22	1630 CST			0	0	0	0	Lightning
	Lightning started three grassfires in Piedmont Valley. One fire burned 1,000 acres east of Tilford, a second fire destroyed 5-6 acres and a third grassfire burned 400 acres around Tilford.								
Walworth & Potter Counties	23	1715 CST			0	0	?	?	Hail
	Three-quarter inch diameter hail fell in Hoven.								
Hughes County	23	1830 CST			0	0	3	0	Flash Flood
	In a half hour, 1.42 inches of rain fell in Pierre, resulting in some flash flooding. Streets were awash and some businesses had water damage. Phone service was interrupted for an hour.								

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

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					KILLED	INJURED	PROPERTY	CROPS	
<b>— SOUTH DAKOTA</b>									
Todd County	23	Evening			0	0	3	0	Wind
									Strong winds knocked out electricity in southern Todd County for a short period. Southeast of Mission, a metal shed had a wall torn out and numerous branches were downed.
Tripp County	23	Evening			0	0	3	0	Wind
									Winds overturned a small airplane tied down at Winner Airport.
Edmunds & Faulk Counties	23	1905-1945 CST			0	0	0	0	Wind, Rain
									Thunderstorms brought heavy rains and strong winds. In Ipswich, (Edmunds County), winds caused a power outage. Roscoe (Edmunds County) recorded over an inch of rain in 30 minutes, North of Wecota (Faulk and Edmunds Counties), winds gusted to 45 mph and the temperature dropped 20 degrees in a very short period of time.
Dewey County	23	1930 CST	short narrow		0	0	0	0	Tornado (F0)
									A tornado was reported four miles east of Eagle Butte, just north of Highway 212.
Meade County	24	1700 CST			0	0	0	0	Lightning
									Lightning started a small grass fire at Bear Butte.
Northern Black Hills	26	2200-2300 CST			0	0	0	0	Lightning
									Lightning burned 1,200 acres of timber and rangeland on the South Dakota/Wyoming border in the northern Black Hills.
Corson, Dewey, and Ziebach Counties	26	2300-0000 CST			0	0	0	0	Lightning
									Lightning spawned at least a dozen range fires. The biggest blaze burned an area three miles wide and eight miles long, twenty miles south of McIntosh (Corson County). South of McIntosh, west of Highway 65, two fires burned spot areas. Another fire burned a spot area south of Morrystown (Corson County).
Dewey County	27	0600 CST			0	0	2	0	Lightning
									Near Eagle Butte, lightning burned 80 acres of grass and several hay bales.
Ziebach County	27	Late Morning Afternoon			0	0	4	0	Lightning
									Five separate lightning-induced fires around Cherry Creek burned 2,000 acres of grass and several hundred hay bales.
Edmunds County	27	Afternoon			0	0	0	0	Lightning
									Lightning started a couple of prairie fires near Bowdle.
Bennett County	27	2100 CST			0	0	0	0	Lightning
									Lightning spawned nine spot-area grass fires in the Harrington area.
<b>40 TENNESSEE</b>									
Paris, Henry County	01	1300CST					3		Lightning
									Lightning struck a heater at a bank, causing \$150 damage. Lightning also struck the fuse box at a house on Guthrie Rd., resulting in a loss over \$250. Lightning struck power poles, causing scattered power outages in the county.
Clarksville, Montgomery County	05	1300-1800CST					5	?	Lightning, High Wind, and Heavy Rain
									Lightning sparked a fire that heavily damaged the upper story of a home. Damage was in the 50 to 60 thousand dollar range. High winds from the thunderstorms knocked down some power lines, causing scattered power outages, but most power disruptions were due to frequent lightning strikes to power lines and equipment. Over 2000 homes had power disruptions during the afternoon. Low-lying and poorly drained areas were briefly flooded during the height of the storm as nearly 2 inches of rain fell between 1300 and 1430CST; a body repair shop was flooded.
Dyer, Gibson, Obion, and Weakley Counties	05	1600-2030CST			1	4	?	?	High Wind, and Heavy Rain
									A 45 year old male carnival worker was seriously injured in Martin (Weakley County) when part of a structure at a carnival midway toppled on him due to high winds from a thunderstorm. The strong winds, estimated in excess of 50 mph, also uprooted several trees and downed power lines. Heavy rains throughout the county, estimated at about 3 inches in a 3 hour period, caused minor flooding of some streets; TN Highway 22 west of Martin was closed briefly; Highway 45 was closed for a short while in the Kenton-Rutherford area; and Highway 104 was closed because of a bridge outage east of Dyersburg. In Obion County, water entered 2 houses in the

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					KILLED	INJURED	PROPERTY	CROPS	
<b>— TENNESSEE</b>									
Roane County	09	Afternoon					3		Lightning
									Bel-Aire subdivision. Some residents of Green Acres were evacuated as water rose quickly. In Dyersburg (Dyer County), a man's truck was swept into an underpass, and he was trapped for half an hour. Numerous homes and businesses received water damage, including a boat shop. The winds gusted to 63 mph at the Flight Service Station at the Dyersburg Airport. Sign damage occurred in Martin, and the trailer of a tractor-trailer rig was blown over.
Davidson, Sumner, and Wilson Counties	10	1600-1800CST					4		Funnel Cloud, High Wind, Hail, and Lightning
									Lightning struck a tree during a thunderstorm, causing the tree to fall onto a house and car on Old Rockwood Highway near Midtown. A six inch hole was punched through the roof of the house.
Belvidere, Franklin County	10	1900CST							Funnel Cloud
									Late afternoon thunderstorms generated a funnel cloud which was seen on both sides of the Wilson-Sumner county line at the Gallatin Steam Plant. A funnel cloud was also reported near the Rivergate area in Goodlettsville in northern Davidson County. A golf cart was struck by lightning and burned at the Lebanon Golf and Country Club in Wilson County. Damaging straight-line winds from the thunderstorms downed power lines and trees, which resulted in power disruptions to over 12,000 homes. High winds ripped boats from their moorings at a marina on Percy Priest Lake in Antioch, while parts of the dock were destroyed. 1/2 to 3/4 inch hail fell over the northern part of Davidson County.
Campbell County	10	1907-1934EST							High Wind, Hail
									55 mph winds downed several trees 1 mile east of LaFollette in Campbell County, and 3/4 inch hail fell in La Follette during a thunderstorm.
Cooke County	10	2000EST					4		Lightning, High Wind
									A thunderstorm sparked lightning which started a fire that destroyed a mobile home. High winds from the thunderstorm blew a 100 year old tree down onto a 150 year old home, damaging two rooms and the roof.
Lincoln County	10	2015CST					3		Lightning
									Lightning was believed responsible for a fire that destroyed an old unoccupied house in the Shady Grove Road area.
Anderson and Knox Counties	10	2015-2200EST					4		Lightning, Hail, and Heavy Rain
									Lightning started a fire at a store on Clinton Highway as well as a fire on Maloneyville Rd. which destroyed a barn, both in Anderson County. Lightning struck a television antenna and went inside a house in Oak Ridge, causing \$150 of damage. Marble sized hail fell over eastern Anderson and western Knox Counties. Winds were clocked at up to 55 mph as numerous trees and power lines were felled. A roof was blown from a shed in Oliver Springs, and a tree fell on and damaged a carport roof at a home on Cahill Lane in Knox County. Heavy rain caused minor flooding at the Knox County Service Center, an auto maintenance shop. A tree fell on a house on West Outer Drive, causing minor damage.
Blount and Loudon Counties	10	2030-2235EST					4		Lightning, Hail
									Marble sized hail fell over many parts of both Blount and Loudon Counties during a thunderstorm, including the Montvale Road area of Blount County as well as near Binfield. Lightning struck a Maryville home, and the ensuing fire destroyed the garage, a bedroom wall, and a ceiling.
Roane County	10	2100EST					3		Lightning
									Lightning during a thunderstorm struck and killed two horses valued at \$1500.
Coffee County	10	Evening					3		High Wind, Lightning
									Violent thunderstorm winds uprooted numerous trees which fell on power lines and caused widespread power outages in Tullahoma. In Manchester, lightning struck a house and fire damaged the roof.
Greene County	10	Evening					3		Hail
									1/2 to 3/4 inch hail fell from a thunderstorm and heavily damaged a 3 acre crop of burley near Chuckey.
Bedford County	12	1430CST					3		High Wind
									Strong thunderstorm winds downed a tree which fell on and partially destroyed a historic cheese plant 5 miles east of Bell Buckle.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

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					KILLED	INJURED	PROPERTY	CROPS	PROPERTY	CROPS	

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS				ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	PROPERTY	CROPS	

## — TENNESSEE

Rutherford County	15	1400CST				2					High Wind
											High thunderstorm winds gusting to near 55 mph blew over some trees and stripped a roof off of a barn just south of Murfreesboro.
Hickman County	15	1700CST				3					High Wind
											Strong thunderstorm winds tore the roof off of a barn at Gray's Bend, an equipment shed collapsed, and a cattle loading building also collapsed. Several trees were uprooted and fences were knocked down.
Carroll County	15	1730CST				3					High Wind, Lightning
											High thunderstorm winds damaged several houses and a church in the Christmasville community. Property damage included broken television antennas, as well as roof damage. A church had a portion of its aluminum roof torn away by the high winds. A hole was created in the roof of a house by a bolt of lightning. A utility building was also heavily damaged by the high winds.
Jackson, Madison County	15	1810CST				?					High Wind, Heavy Rain
											High thunderstorm winds downed numerous trees and limbs, which fell across power lines and caused widespread power outages. Heavy rains caused urban flooding in low lying areas, and water reached bumper height at the intersection of US 45 Bypass and South Highland Avenue in downtown as around an inch of rain fell in a 20 minute period.
Carter County	15	2200EST				4					Lightning
											Lightning struck and killed four cattle in Roan Mountain and also demolished about 1000 feet of electrified fence. Lightning also struck a house in Stoney Creek. The house was set on fire, and a six foot wide hole was made in the roof.
Lewisburg, Marshall County	15	Afternoon				3					High Wind
											Thunderstorm winds ripped a tin roof off of an apartment building.
Altamont, Grundy County	21	1630CST			1	7					Lightning
											A 10 year old boy was killed by lightning as he participated in a Boy Scout camp. Seven other campers were injured. Lightning struck a nearby tree and traveled through the root system and the ground into the boys' tent as the boys rested on their metal cots.
Shady Valley, Johnson County	21	2115EST				4					Lightning
											Lightning sparked a fire which destroyed a barn and its contents.
Smyrna, Rutherford County	22	Evening				4					High Wind
											Violent thunderstorm winds toppled a brick wall onto and through a roof at a pharmacy, and a window was also broken. A 24 foot pontoon boat was flipped over, and the roof of a barn was blown away.
Cookeville, Putnam County	22	Evening				4					Lightning
											Lightning started a fire at a storage building and destroyed the building located in the Honeybrook subdivision. The building's contents were also destroyed.
Scott County	22	Evening				3					High Wind
											Most of a three acre tobacco patch was destroyed by high winds from a thunderstorm.
Greene County	22	Evening			1	3	3				Lightning, High Wind
											A man was struck by lightning and knocked unconscious near Afton. High winds from the thunderstorm blew down an implement shed and ripped a roof from a barn. The high winds also destroyed crops in some fields, particularly corn and tobacco. Several trees were blown down in the Hatman's Chapel area.
Washington County	22	Night				4					Lightning
											Thirty head of cattle were killed by lightning at Clear Springs.
Oak Ridge, Anderson County	24	1520-1700EST				3					Flash Flooding
											Heavy rains from a thunderstorm caused water to rise quickly in low lying areas of eastern and middle Oak Ridge. An unofficial report of 2.28 inches of rain was recorded between 1520 and 1700 EST on South Illinois Avenue. The intersection of Oak Ridge Turnpike and Illinois Avenue was described as a lake as the East Fork of Poplar Creek overflowed its banks. Water entered a credit union, and 3 homes. Road shoulders were washed out on Emory Valley Road as well as Coal Yard Road.

## — TENNESSEE

Clay County	31	Evening				0	0	4	?		High Wind, Lightning, and Heavy Rain
											Violent thunderstorm winds did considerable damage at the Horse Creek Dock, including damage to roofs and slips. Five "runabout" boats were sunk. A double-wide mobile home was struck by lightning in the Pea Ridge community, and the resulting fire destroyed the trailer and its contents. The 4.20 inches of rain that fell from the thunderstorm caused a mudslide that knocked down a wall of a funeral home in Celina; several caskets were damaged. A \$10 thousand loss was incurred.
Bradley County	13?	?				1					Lightning
											A 48 year old man was apparently struck by lightning and killed as he was hanging or taking down clothes from a clothesline at his secluded White Oak Road house. His body was not discovered until 7/27, and the man's brother said the victim was on a 2 week vacation. County medical officials determined lightning to be the cause of death, and it was theorized lightning struck a tree to which the clothesline was attached. The exact date and time of death remain unknown.

## 41 TEXAS, Northern

Collin County	2	1535CST				0	0	?	?		Hail
											Hail to 3/4 inch was reported by Sheriff's Deputies in the McKinney area.
Tarrant County	2	1705CST-1835CST				0	0	3	?		Hail
											Spotters reported hail to 3/4 inch in Saginaw at 1705CST. By 1810CST, hail had begun to fall again with some to quarter size.
											Between 1730CST and 1745CST, hail up to golfball size fell on the north side of Lake Worth. Some minor damage to homes was reported, along with trees and plants being damaged.
											At 1835CST, spotters reported the hail was quarter size in the northwest part of Ft. Worth.
Dallas County	3	1720CST				0	0	?	?		Thunderstorm Winds
											Spotters estimated winds to 70 mph in Grand Prairie.
Bosque County	18	1710CST				0	0	5	?		Thunderstorm Winds
											Thunderstorm winds destroyed 4 barns measuring 50 by 300 ft. each, 4 miles southwest of Clifton. In addition, two valuable hogs were killed. Damage was estimated at \$100,000.
Dallas County	19	1430CST				1	2	?	?		Lightning
											A 15 year old boy was rolling up the windows of a car in the parking lot of a DeSoto swimming pool as a thunderstorm approached. Lightning struck the boy, killing him and injuring two companions.
Dallas County	21	1510CST				1	0	5	?		Lightning, Thunderstorm Winds
											Thunderstorm winds damaged a 4 block area of North Dallas near the 3100 block of Irving Blvd. The roof of one building was removed and numerous windows were blown out by the high winds. However, since much of the area is industrial and it was a Sunday, there were no injuries.
											In a separate incident, a man was struck by lightning and killed in North Dallas at about 1520CST. The man was carrying groceries into the house from his car as it began to rain. As he walked by a 40 ft. tall tree, lightning struck the tree and then the man.
Ellis County	22	1245CST				0	0	4	?		Thunderstorm Winds
											Thunderstorm winds overturned a mobile home near Boz.
											Spotters estimated winds at 60 mph in Waxahachie at 1256CST.
Tarrant County	22	1305CST				0	0	?	?		Thunderstorm Winds
											Spotters reported winds to 60 mph north of Crowley.



# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	

## TEXAS, Northern

Denton County	22	1520CST	0	0	?	?	Thunderstorm Winds		
Spotters reported winds over 60 mph downed trees and overturned several out-buildings north of Denton.									
Collin County	22	1535CST	0	0	?	?	Thunderstorm Winds		
Amateur radio spotters reported winds of 60 to 70 mph downed trees and power lines west of McKinney.									
Anderson County	22	1800CST	0	0	?	?	Lightning		
In separate incidents, two dwellings were destroyed by fire after being struck by lightning in Frankston. One was a mobile home that burned after the strike, while the other was a frame home.									
Tarrant County	23	0950CST 1200CST	0	0	5	?	Lightning, Flooding		
A Ft. Worth home was nearly destroyed by fire after being struck by lightning. An eyewitness observed the strike and called the Fire Department, helping save the structure.									
Heavy rains accompanied the storm and by 1030CST, the Interstate west of downtown Ft. Worth was partially under water. Motorists were diverted around the flooded roadway for several hours. A few miles to the south, in the Hulen Mall area of southwest Ft. Worth, street flooding became critical with some cars in water up to their windows. Carswell Air Force Base recorded 2.62 inches rain between 1020CST and 1150CST.									
The city of Mansfield received 4.6 inches rain between 0900 and 1100CST. Several roads were flooded during the late morning and early afternoon.									
Palo Pinto County	23	1240CST 1600CST	0	0	?	?	Flooding		
The city of Mineral Wells received 3 inches of rain in about 30 minutes, with many streets flooding. During the course of the afternoon, a total of 5.2 inches fell between 1230CST and 1600CST. A number of the streets were barricaded for several hours until the waters receded.									

## 41 TEXAS, Southern

Guadalupe County	3	1400CST	0	2	0	0	Lightning		
Lightning struck near two construction workers near the town of Marion. The lightning knocked the two men to the ground. They were treated at a nearby hospital and released.									
Harris County	3	1410CST	0	0	0	0	Hail		
Public reported hail one inch in diameter fell on the northwest side of Houston near the intersection of US Hwy 290 and Tidwell Rd. Damage not reported.									
Comal County	3	1445CST	0	0	?	0	Wind		
Thunderstorm winds damaged 4 homes in the Bulverde area. The high winds also downed and twisted some oak trees in the area. Utility poles and lines were also damaged.									
Bexar County	3	1500CST	0	0	?	0	Flash Flooding		
4-6 inches of rain fell over the northern portions of Bexar County. The heavy rains produced flash flooding as numerous low water crossings were closed because of the high water. There was wide spread street flooding and several stalled vehicles. Many streets in the city were closed. Rainfall reports included 5.20 at Bulverde (rainfall observer at Bulverde stated that he has had 17 inches of rain in the past 30 days), 4.40 fell at Salado Creek and Loop 410, 4.28 fell 4 miles north of the airport. The 24 hour total at the NWS Office at Broadway and Loop 410 was 4.45 inches. Local creeks got on a rise with Cibillo Creek in the eastern part of the county reported to be 18-20 ft deep.									
Kerr County	6	1445CST	0	0	0	0	Hail		
Hail the size of quarters was reported by the public in southwest part of the county. Damage not reported.									
Bastrop County	6	1830CST	0	0	0	0	Hail, Wind		
Hail the size of golfballs fell at the Pine Forest sub-division just southeast of Bastrop. Hail damage not reported. High winds also downed some tree limbs.									

## TEXAS, Southern

Val Verde County	6	1930-2045CST	0	0	?	0	Hail		
Golfball size hail was reported at the Mayfield store just south of Juno. Also hail the size of golfballs fell near Comstock and on US Hwy 277 near Loma Alta. There was some car windshield damage at both the Mayfield store and near Comstock.									
Williamson County	7	1813CST	0	0	?	0	Wind		
Thunderstorm winds destroyed a garage near Liberty Hill. Numerous trees were also downed in the area.									
Montgomery County	18	1630CST	0	0	?	0	Wind		
Thunderstorm winds damaged a home under construction at Hunters Point which is located near Lake Conroe, between Willis and Montgomery. Also, a boat was capsized by the high wind and sunk on nearby Lake Conroe.									

## 41 TEXAS, Western

Ector County	05	2100CST	0	0	0	0	Lightning		
At approximately 9 p.m. CST, a boy, 12 years old, was hit by lightning while riding in an automobile. He was rolling up the window of the car and was barefooted. The lightning passed through him. He was taken to the hospital but was not injured. An EKG and other tests given in an Odessa Hospital proved negative.									
Presidio County	12	1827CST	0	0	?	0	Wind		
A wind gust to 72 mph, believed to have been produced by a dissipating severe thunderstorm, was recorded by an automatic weather station in Marfa.									
Lubbock County	22	1217CST					Funnel		
The Police Department in the City of Lubbock reported a very small rope-type funnel just northeast of the City.									
Lubbock County	22	1301CST	short	20	0	0	0	0	Tornado (F0)
A small tornado touched down briefly in the northwest section of the City of Lubbock, causing no damage.									
Nolan County	22	1355CST	0.1	30	0	0	0	0	Tornado (F0)
A small tornado was sighted 2 miles east of Wastella.									
Ector County	22	1545CST					Funnel		
A funnel, just west of Odessa, was sighted by a Weather Service employee.									
Cochran County	25	1314CST	0.1	30	0	0	0	0	Tornado (F0)
The Morton Police Department reported a tornado about 5 miles north of Morton.									
Midland County	25	1655CST					Funnel		
A funnel cloud was sighted by the public just south of Midland.									
Leab County	26	1805CST					Funnels		
A large thunderstorm produced 3 funnel clouds in northeast Lamb County.									

## 42 UTAH

Salt Lake and Washington Counties	6	1800MST	0	0	4	0	Lightning and Thunderstorm Winds		
An outbreak of high based, mostly dry thunderstorms produced a considerable amount of lightning and strong gusty winds on this Saturday evening. A lightning strike to a Utah Power and Light generating station caused a nearly statewide blackout which lasted for up to 5 hours in places. A wind gust estimated at 60 MPH occurred at La Verkin in Washington County. Additional power outages and damaged trees resulted from this wind.									
Salt Lake, Tooele and Washington Counties	7	1700MST to 2000MST	0	0	1	0	Thunderstorm Winds		
High based, dry thunderstorms caused wind gusts in excess of 50 MPH at several locations on this Sunday evening. Tooele had a gust to 63 MPH, Wendover and Provo both had gusts to 54, and St George 52 MPH.									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
<b>UTAH</b>									
Wasatch County	11	1300MST to 1400MST			0	0	1	0	Hail
		A Utah Power and Light station reported receiving 1 inch hail which covered the ground at Monte Cristo.							
Tooele County	11	1915MST			0	0	3	0	Flash Flood
		A flash flood covered a portion of Utah Highway 199 with 20 feet of water near Willow Springs, according to a sheriff's deputy. A flash flood spotter at Johnson Pass reported receiving 1.30 inches of rain between 1830 and 1900 MST.							
Wasatch and Duchesne Counties	11	2000MST to 2130MST			0	0	3	0	Flash Flood
		Heavy thunderstorm rainfall caused a flash flood which washed out a portion of U.S. Highway 189 near Francis. In a nearby area, another flash flood washed out the junction of Utah Highways 208 and 35 near Tabiona.							
Northern Utah and Salt Lake Counties	12	1645MST			0	0	3	0	Thunderstorm Winds
		Thunderstorm winds estimated to 70 MPH by a highway patrolman damaged signs and billboards along Interstate 15 and created a dust storm on this Friday afternoon. The Provo Airport had gusts to 60 MPH. A spotter in Copperton had a gust to 56 MPH. The storm also produced .71 inches of rain in Tooele.							
Box Elder County	12	1700MST			0	0	4	3	Flash Flood
		An estimated 2 inches of rain fell in 45 minutes in the small towns of Thatcher and Bothwell in this northwestern Utah county. The flood swept 28 head of cattle down the Faust Valley Road and killed 8 of them. Many headstones at the Thatcher-Bothwell cemetery were washed nearly a quarter of a mile away. 14 farm houses were flooded and much farm equipment and other property was scattered about.							
Daggett County	12	1800MST			0	0	4	0	Flash Flood
		An estimated 3 inches of rainfall in an hour near Manila, Utah caused a flash flood that washed out a Forest Service road and flooded a campground. The campground was evacuated in time so that no one was injured.							
Salt Lake County	16	0540MST			0	0	3	0	Lightning
		A single lightning strike caused a house fire in the avenues area of Salt Lake City. The fire caused about ten thousand dollars damage.							
Iron County	16	1545MST			0	0	2	0	Flash Flood
		A minor flash flood washed some debris over the highway on Utah Highway 14 southwest of Cedar City. Rainfall totals in the area included .80 inches in an hour, 5 miles east of Cedar City.							
Tooele County	16	1600MST			0	0	1	0	Thunderstorm Winds
		The Wendover AUTOB reported a thunderstorm gust to 51 knots at this hour. No damage was reported.							
Salt Lake County	17	1325MST			0	0	0	0	Funnel Cloud
		A funnel cloud was observed 5 miles west of the Salt Lake International Airport. The funnel remained well aloft and lasted for about 4 minutes.							
Sevier County	17	1545MST			0	0	5	0	Flash Flood/Hail
		Thundershowers over the Sevier Valley produced heavy rain and hail during this Wednesday afternoon. A flash flood was reported in Clear Creek Canyon west of the town of Sevier at around 4:45 PM MDT. Some rocks and debris were washed onto Utah Highway 4 from this flood. Also, the Cottonwood Wash just north of Richfield was flooded and considerable mud and debris was piled up near the entrance of the town. Near the same time, hail stones up to 1 inch in diameter pelted a strip of western Sevier County about two miles wide and six miles long. One farmer reported that 100 acres of grain and hay were lost and another lost 16 acres of corn due to hail damage. Some wind damage was also possible.							
Utah County	17	1755MST			0	0	0	0	Thunderstorm Winds
		A gust to 59 MPH was reported by BYU in Provo.							
Duchesne County	17	2000MST			0	0	3	0	Flash Flood
		Flooding occurred in Nine Mile Canyon south of Duchesne and stranded some oil field trucks in mud.							

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					KILLED	INJURED	PROPERTY	CROPS	
<b>UTAH</b>									
Iron County	18	1052MST			0	0	4	0	Flash Flood
		A flash flood closed State Road 143 east of Parowan. A spotter in Parowan reported receiving .30 inches in 30 minutes shortly before the flood. Utah Highway 14 was washed out east of Cedar City and several campers were stranded on Kolob Mountain after a bridge on the access road was washed out. Blowhard Mountain received 1.52 inches of rain in 2 hours and a spotter 5 miles east of Cedar City had 1.50 inches in 2 hours.							
Kane County	18	1345MST			0	0	3	0	Flash Flood
		Heavy rainfall in western Garfield County caused flooding in the Orderville area which reduced U.S. 89 to one lane, and water entered several homes and businesses.							
Utah County	18	1830MST			0	0	4	0	Flash Flood and Thunderstorm Winds
		A reported 1.2 inches of rain in 15 minutes and 1.63 inches in 40 minutes caused flooding which damaged several basements and a Samons Hardware Store. The associated thunderstorm winds blew down two trees which took out a power line.							
Kane County	19	1435MST			0	0	3	0	Flash Flood
		For the second day in a row, Orderville received heavy rainfall. A storm total of 1.40 inches in 30 minutes was reported from that area. Water was reported to be running over bridges.							
Wayne County	19	1900MST			0	0	4	0	Flash Flood
		A flash flood knocked out a bridge over the Fremont River and stranded 25 campers in the Capitol Reef National Park on this Friday evening. Utah Highway 24 was out of service for about 36 hours.							
Tooele County	20	1230MST			0	1	0	0	Lightning
		Lightning struck and injured a hiker in the Stansbury Mountains on this Saturday afternoon. The hiker was in a group of three which had almost reached the top of Deseret Peak.							
Kane County	20	1415MST			0	0	2	0	Flash Flood
		Heavy rains for the third day in a row at Orderville caused street flooding. One spotter estimated a rainfall of 1 inch in 20 minutes.							
Duchesne County	20	1520MST			0	0	2	0	Flash Flood
		Heavy rains caused flooding which closed Utah Highway 35 east of Tabiona and U.S. 40 near Duchesne for a while. Water was pouring over both roads in such volumes that traffic could not pass.							
Iron County	20	1525MST			0	0	0	0	Funnel Cloud
		A funnel cloud was spotted by the Cedar City observer.							
Carbon and Emery Counties	20	1900MST			0	0	2	0	Flash Flood
		A flash flood washed out part of an entrance road to the Scofield mine. Persons at the site reported about 1-1/2 feet of water running across the road. Also at about the same time, Highway 29 through Joe's Valley was washed out.							
San Juan County	21	1900MST			1	1	1	0	Lightning
		Lightning struck two women as they were running to their truck. As they approached a ditch, one woman jumped over it just as the lightning hit, knocking her unconscious. She later revived. The other woman died of cardiac arrest.							
San Juan County	21	1915MST			0	0	1	0	Flash Flood
		Heavy showers caused water to flow across most of the roads in the Blanding area on this Sunday evening. One spotter reported receiving 1.42 inches in 50 minutes. Flash flooding also damaged Utah Highway 95 between Blanding and the Natural Bridges National Monument, and between the hit crossing and the U276 junction.							
Box Elder County	22	1100MST			0	0	2	0	Flash Flood
		Thunderstorms dumped 1.6 inches of rain on the farming community of Blue Creek in a 90 minute period on this Monday morning. Heavy rain also fell in Snowville, Thatcher, and Brigham City which reported 1.5 inches in 30 minutes. The excess water caused an irrigation canal to fail in Thatcher which then caused extensive flooding in that area. One basement collected 7 to 8 feet of canal water. This is the second time in ten days that the area had received heavy rainfall.							

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

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					KILLED	INJURED	PROPERTY	CROPS	
<b>UTAH</b>									
Duchesne County	22	1400MST			0	0	3	0	Flash Flood
			A flash flood washed out a section of Utah Highway 35 east of Tabiona for the second time in a week.						
Salt Lake County	22	1830MST			0	0	0	0	Funnel Clouds
			Airport tower personel reported seeing two funnel clouds just west of the Salt Lake City International Airport.						
Box Elder County	23	1400MST			0	0	4	0	Flash Flood and Hail
			For the second day in a row, northeast Box Elder County was soaked with heavy rain. A stationary thunderstorm dumped a record 2.39 inches of rain in 2 hours in the town of Tremonton in the early afternoon hours. Many businesses and homes were flooded as storm drains filled to capacity and water began running over the curb and through the doors. Three quarter inch hail blanketed the ground following the rainfall.						
Cache County	27	1230MST			1	2	1	0	Lightning
			Two men and a teenage boy were struck by lightning on the Sweet-water Golf Course in Cache County. All had taken refuge under trees when it began raining. The two men were in one party and the boy in another. One of the men was killed instantly. The other man lost consciousness for a while and then woke up paralyzed. The teenager was knocked briefly.						
Washington County	28	unkwn			0	0	1	0	Flash Flood
			A minor flash flood spread mud and debris across the Echo Canyon road. 1.40 inches of rain was reported at the Cedar Breaks National Monument near the same time.						
Davis County	30	0120MST			0	0	2	0	High Winds
			Easterly canyon winds produced a gust of 61 mph at Farmington on this Tuesday morning. A few power lines were damaged.						
43 VERMONT ————— NONE REPORTED									
<b>44 VIRGINIA</b>									
Rockingham County	04	1600-1700 EST			0	0	3	3	Hail
			Quarter size hail severely damaged gardens and crops across northern portions of Rockingham County in the Bergton area. The hail reportedly fell for almost an hour along a path from southeast of Bergton into West Virginia.						
Albemarle County	09	1715 EST			0	0	?	?	Hail
			Golf ball size hail reported in Charlottesville area.						
Henrico and Hanover Counties	09	1933-2030 EST			0	0	5	?	Hail, Lightning
			3/4 inch hail fell across western Henrico County near the Richmond city limits. Lightning struck and set fire to a house near Mechanicsville in Hanover County, causing about \$100,000 damage.						
Dinwiddie County	09	2003-2035 EST			0	0	?	?	Funnel Cloud, Hail
			Golf ball size hail and funnel cloud reported by county officials.						
Bedford County	10	1450 EST			0	0	?	?	Hail
			Cube size hail reported at Goodview in Bedford County.						
Russell and Washington Counties	10	1810-1830 EST			0	1	3	?	Wind
			Thunderstorms with damaging winds, heavy rain and hail moved from W of St. Paul in Russell County, SE into Bristol, Va. Half of the town of Lebanon was left without power, with numerous trees down blocking roads. One person was injured in Washington County as a result of trees across a road.						
Albemarle, Nelson Orange, and Louisa Counties	11-12	2000EST-1200EST			0	0	3	?	Rain
			Thunderstorms developed along a frontal boundary on the evening of the 11th and persisted through the night. Additional thunderstorms redeveloped and moved across the same areas during the morning hours of the 12th dropping 3 1/2 inches of rain at Rockfish in Nelson County and at Gordonsville in Orange County. More than 5 inches of rain fell across eastern portions of Albemarle County.						
<b>VIRGINIA</b>									
Richmond, Va.	13	1700-1900EST			0	0	5	0	Rain, Wind
			Heavy thunderstorms moved through the Richmond area dropping nearly 3 inches of rain in less than 2 hours with widespread power outages caused by felled trees and branches. Interstate 95 near Belvedere Street was blocked by 5 feet of water for three hours. Several low lying areas were flooded damaging buildings, roofs and autos.						
Central and Northern Virginia	25								Hurricane/Tropical Storm BOB
			Hurricane Bob moved northward from the Carolinas as a tropical storm into central Virginia on the 25th. A large convective band developed over central portions and moved rapidly northward with thunderstorms, strong gusty winds and three tornadoes. Details as follows:						
Goochland County		1130EST	short	?	0	0	2	0	Tornado (F0)
			A funnel cloud with a roaring sound was reported by the public near Hanikin, about 30 miles northwest of Richmond's Byrd International Airport (RIC). It became a short-lived tornado, downing one large oak tree.						
Hanover County		1218EST	?	?	0	0	?	?	Tornado (F0)
			A tornado was reported by county officials near Holly Hills, about 23 miles north of Richmond's Byrd International Airport (RIC).						
Albemarle and Greene Counties		1314EST	0.1	100	0	0	5	0	Tornado (F3)
			A funnel cloud of a tornado was reported by the public, moving south-southeast to north-northwest over the County Line grocery store on the Albemarle-Greene county line and U.S. 29. The roof of the store was lifted as the funnel passed over, and windows were blown out. The tornado then struck the west Lee subdivision, uprooting trees and totally destroying two houses by blowing their roofs off and caving in their sides. Several other houses were struck by flying debris.						
Prince William County		1300EST			0	0	4	0	Wind
			High winds with the thunderstorm band from Tropical Storm Bob destroyed an ice cream parlor under construction in Manassas.						
Patrick County	26	1800-1900 EST			0	0	3	4	Rain
			An isolated heavy thunderstorm moved across portions of Patrick County, dropping as much as 6 inches of rain in one hour in the Central Academy area. The extremely heavy rain filled stream banks and caused considerable crop and erosion damage in the bottomlands of the South Mayo, North Mayo, and Little Dan Rivers and tributaries.						
45 WASHINGTON ————— NONE REPORTED									
<b>46 WEST VIRGINIA</b>									
North Central	8	Evening			0	0	?	?	Hail
			A group of severe thunderstorms formed over northern West Virginia, producing widespread hail. One inch diameter hail fell at Morgantown. One-half to one inch diameter hail was reported at Rowlesburg, Tunnelton, Seneca, Valley Head, Bemis, Davis, and Smoke Hole.						
Tucker County	8	2147EST	0.7	100	0	0	0	?	Tornado (F1)
			A tornado touched down in a forest area near Benbush and moved to Thomas.						
Pocahontas County	9				2	0	0	0	Thunderstorm
			A tree, believed weakened by heavy thunderstorms passing through the county during the previous day, fell on a passing car, killing the two occupants immediately.						
Randolph County	9	0030-0800EST			0	0	4	4	Hail/Thunderstorm
			A thunderstorm caused small stream flooding on Horse Camp Run and several other small tributaries which flow into dry forks of the Cheat River at Harman. Bridges, homes and roads were damaged. Hail from 1 inch to golfball size was reported. Harman received 5.62 inches of rain during the 18 hours ending 1000EST on July 9th.						
Preston County	9	0630EST			0	0	3	3	Hail
			A thunderstorm that moved across the county produced 1/2 inch hail, resulting in damage to dwellings and vehicles 20 miles east of Morgantown.						

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

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					KILLED	INJURED	PROPERTY	CROPS	

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	

## WEST VIRGINIA

Tucker County	9	0750EST			0	0	3	3	Hail
1 1/4 inch hail was reported at Canaan Valley during a thunderstorm that moved through the county.									
Randolph County	10	0400-1100EST			0	0	4	4	Hail/Thunderstorm
Thunderstorms dumped 7.58 inches of rain (measured on a Corps of Engineers rain gauge) at Huttons Knob, causing flooding and subsequent road closings. The same storm dropped hail measuring from 1/2 inch at Daily to 3/4 inch at Pickins and Elkins. Three cows and a bull were killed by lightning in Kingsville while taking refuge under a tree.									
Roane County	10	Morning			0	0	3	3	Lightning
Lightning reportedly caused the deaths of 9 cattle near Peniel. The cattle were electrocuted while taking shelter from the storm under an oak tree.									
Calhoun County	10	0815EST			0	0	4	0	Thunderstorms
High winds from severe thunderstorms uprooted trees and felled powerlines. Lightning struck a home, causing a fire that totally destroyed it. Considerable damage was done to businesses, and road blockage was caused by falling trees and powerlines.									
Braxton County	10	1350EST			0	0	3	0	Winds
Trees were uprooted, and windows were blown out of homes and businesses in Rosedale when high winds accompanying a thunderstorm moved through the county.									
Harrison County	10	1444EST			0	0	4	0	Lightning
\$30,000 in damages was caused by lightning striking a private residence and a resulting fire.									
Logan County	10	1844EST			0	0	?	?	Flooding
5 feet of water flooded Route 119 after heavy rains moved through the area. It was possible that a dam failed at Curry Hollow.									
Cabell County	11	Afternoon			0	0	?	?	Thunderstorm
The Huntington Weather Service Office recorded 2.7 inches of rain in a two hour period. The heavy rain resulted in street flooding. Lightning caused numerous power outages across the area.									
Wood County	15	0050EST			0	0	5	?	Heavy Rain
Thunderstorms producing very heavy rains passed through Parkersburg. Rainfall amounts of up to 5.35 inches in less than two hours were reported. Extensive flooding of residences and businesses occurred. Route 50 was closed due to flooding.									

## 47 WISCONSIN

Statewide									
Early in the afternoon of the 4th, a line of severe thunderstorms quickly developed and marched across the state from west to east. Much of the severe weather generated by the squall line was hail driven by high winds which caused over \$5 million in crop damage. Several counties in the west and central sections bore the brunt of the hail damage which affected over 135,000 acres of farmland.									
Buffalo, Trempealeau, and Jackson Counties	04	1233-1500	CST		0	0	5	6	Thunderstorm Winds, Hail
A severe thunderstorm devastated over 114,000 acres of farmland with hail ranging in size from marbles to golfballs to small baseballs. The storm, covering about 150 square miles of Buffalo County, started at Nelson, moved east, and expanded to an 8 mile wide swath near Gilmanton and Lookout. The storm then moved across Trempealeau County where a 6 mile wide path of destruction was carried through the townships of Chimney Rock, Hale, Pigeon, northern Burnside and northern Lincoln. Hail up to golfball size occurred in western Jackson County near Hixton. Over \$1.5 million damage to crops, affecting 45,000 acres, took place in Buffalo County. Over \$3 million in damage to crops affecting 69,120 acres, was noted in Trempealeau County. Winds gusting up to 60 mph drove the hail which also caused damage to windows, roofs, siding, mobile homes and vehicles.									
Ashland County	04	1235CST			0	0	0	?	Hail
A severe thunderstorm dumped hail up to golfball size near Clam Lake.									
Vilas County	04	1305-1400	CST		0	0	0	?	Hail
Nickel size hail fell from a severe thunderstorm 5N of Lac du Flambeau, damaging 10% of the cranberry bogs in the area.									

## WISCONSIN

Taylor County	04	1400CST			0	0	?	?	Thunderstorm Winds, Hail	
A severe thunderstorm blew down several large trees and hail up to 3/4 inch in diameter damaged crops near Medford.										
Clark County	04	1415CST			0	0	?	?	Hail	
Golfball size hail was deposited by a severe thunderstorm 1N of Greenwood.										
Oneida County	04	1425CST			0	0	?	?	Hail	
Hail up to 2 inches in diameter fell from a severe thunderstorm at Minocqua.										
Adams County	04	1455CST			0	0	?	?	Hail	
A severe thunderstorm produced hail up to golfball size 5N of Big Flats.										
Wood County	04	1515-1527	CST		0	0	?	?	Hail	
Pea to golfball size hail was generated from a severe thunderstorm at Wisconsin Rapids and Port Edwards.										
Oconto County	04	1700CST			0	0	0	?	Thunderstorm Winds	
Intense thunderstorm winds felled 30 large trees 1SW of Townsend.										
Maushara County	04	1703-1715	CST	5.0	50	0	0	4	3	Tornado F0, Hail, Damaging Winds
A small tornado touched down 1N of Redgranite and skipped northeast over open country until it damaged a house 1SW of Pine River before dissipating. Intense winds accompanying the storm caused tree, power line, and crop damage along a 10 mile path from Redgranite northeastward. Hail from the storm up to 3/8 inches in diameter covered the ground in the Richford and Hancock areas. The hail also dented many vehicles including 47 new cars at a dealership in Coloma.										
Winnebago County	04	1720-1730	CST		0	0	4	?	Thunderstorm Winds, Hail	
Strong thunderstorm winds downed several large trees and numerous power lines in Oshkosh. One large tree extensively damaged a 2 car garage. Hail up to 3/4 inch in diameter also fell.										
Columbia County	04	1720-1800	CST		0	0	6	?	Thunderstorm Winds, Hail	
A severe thunderstorm pelted a 4 mile wide area 8 miles long from the Junction of county highways A & Z northeast to Randolph with high winds and hail up to 3/4 inch in diameter. About 20,000 acres of crops were affected with yield losses of 20 to 50 percent and damage estimated at \$1.3 million. 3/4 inch size hail was reported at Portage and tree damage occurred at Poynette.										
Dane County	04	1750-1840	CST		0	0	?	?	Hail	
Hail up to 1 inch in diameter was spewed from a severe thunderstorm at Springfield Hills and Sun Prairie. Hail up to 3/4 inch in diameter covered the ground at Brooklyn.										
Rusk County	05	1748CST			0	0	?	?	Hail	
3/4 inch diameter hail was produced by a severe thunderstorm near Meyerhauser.										
Door County	08	1400-1430	CST		0	0	5	6	Thunderstorm Winds, Hail	
A severe thunderstorm ripped through the Sturgeon Bay area and southern Door County, toppling large trees. \$150,000 in damage occurred to several mobile homes and 4 barns in the Sand Bay area. High winds and hail devastated 12,500 acres of cropland, with a 25 to 50 percent yield loss to apple and cranberry orchards. Total crop damage was valued at \$2.4 million.										
Vilas County	09	1430-1515	CST		0	0	4	6	Thunderstorm Winds, Hail	
A severe thunderstorm with high winds and hail up to 3/4 inch in diameter occurred in a 1/2 mile wide path from Manitowish Waters to Boulder Junction. The hail, drifting up to a depth of 6 inches, caused 70 percent yield losses to 500 acres of cranberry bogs, with an estimated value of \$4.7 million. 3 farm buildings were also damaged.										

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

JULY 1985

PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM
					KILLED	INURED	PROPERTY	CROPS	

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## WISCONSIN

La Crosse and Vernon Counties	09 1455-1545 CST		0	0	5	6	Thunderstorm Winds, Hail	A severe thunderstorm packing winds up to 125 mph and hail up to 1½ inches in diameter carved a 2 to 4 mile wide path of damage from just south of La Crosse, across northwest Vernon County to Viola. In La Crosse County, \$100,000 in damage occurred at the La Crosse Municipal Boat Club, including a deck ripped from its moorings and several damaged boats. 2 towers belonging to WKTY were blown over and many vehicles were dented by the hail. In Vernon County, over 46,000 acres of cropland were affected by the wind and hail combination, causing over \$1 million in damage. A silo roof was blown off and a tobacco shed leveled IE of Liberty Pole.
Oneida County	09 1520-1605 CST		0	0	4	6	Thunderstorm Winds, Hail	High winds and hail up to ¾ inch in diameter fell over a 4 mile wide, 6 mile long area from Rhineland to Monico. 6500 acres of cropland were damaged to the tune of \$4.7 million, with crop yield losses ranging up to 90 percent for barley and 85 percent for potatoes. Several farm buildings were also damaged.
Forest County	09 1600CST		0	0	3	4	Thunderstorm Winds, Hail	Intense thunderstorm winds damaged a farm building, and took a roof off a body shop, damaging 2 cars near Crandon. Hail also caused \$32,000 damage to 50 acres of crops.
Oconto County	09 1635CST		0	0	?	?	Hail	¾ inch diameter hail fell from a severe thunderstorm near Gillet.
Crawford County	09 1640CST		0	0	?	?	Hail	Hail up to 1 inch in diameter was dumped by a severe thunderstorm at Wauzeka.
Grant County	09 1710CST		0	0	?	?	Hail	A severe thunderstorm pelted Lancaster with hail up to 1 inch in diameter.
Kewaunee County	09 1855CST		0	0	?	0	Thunderstorm Winds	Strong thunderstorm winds blew over lighting standards and a baseball backstop, as well as twisting several trees in Luxemborg.
Polk County	17 1730CST		0	0	5	0	Lightning	Lightning struck a 100 year old barn between Luck and Fredric. The resulting fire destroyed the barn.

## 48 WYOMING

Sheridan, Sheridan County	01 Evening		0	0	?	0	High Wind	Wind gusts to 59 mph were logged at the Sheridan County Airport during the mid evening.	
Lander, Fremont County	06 1458HST		0	0	?	0	High Wind	A wind gust to 66 mph was logged at the Lander airport.	
Laramie County	14 Evening		0	0	6	6	Thunderstorms	Hail 1 inch in diameter was reported 1 mile northeast of Cheyenne. Hail piled up to a depth of 4 inches along Interstate 25 south of Cheyenne. Wind gusts to 60 mph were logged in that part of the county also. One inch of rain fell west of Carpenter, washing out a county road. Wheat, about to be harvested, was damaged by the storm. Hail swaths 2 to 3 miles wide were encountered.	
Fremont County	18 Afternoon		0	0	4	0	Thunderstorm	Wind gusts estimated to 75 mph toppled an oil well drilling rig west of Morton. Heavy rain and hail also accompanied the storm.	
Albany County	19 Afternoon		0	0	4	0	Thunderstorms	Storms dumped up to 1.26 inches of rain in Laramie, causing minor urban flooding. Two unconfirmed funnel clouds were also reported. One was west, and the other southwest, of Laramie at a distance of about 10 miles.	
Uinta County	22 Afternoon		0	0	4	?	Thunderstorms	Sudden downpours from storms flooded parts of the Bridger Valley. Minor flood damage was reported at Ft. Bridger and Lyman.	
Niobrara County	26 Afternoon	?	?	0	0	3*	0	Tornado (FO) Tornado (FO)	Two tornadoes dipped out of a thunderstorm at Hat Creek Junction, 10 miles north of Lusk. The twisters tore up some trees and shrubbery, but otherwise caused no damage. (*combined damage)
Sheridan County	29-30 Overnight		0	0	4	?	Thunderstorms	Very heavy rain from storms caused flooding along Clear Creek from Clearmont to Leiter. Some irrigation equipment was damaged.	

## WYOMING

Yellowstone National Park	30 1245MST		0	0	0	0	Funnel Clouds	Funnel clouds were reported in Rim Station area by Park Rangers.
Sublette County	30 Afternoon		0	0	0	0	Funnel Clouds	The highway patrol reported several funnel clouds 20 miles northwest of Big Piney.
Converse County	30 1834MST		0	0	0	0	Funnel Cloud	Highway patrol reported a funnel cloud 8 miles southeast of Douglas near Orin Junction.
Goshen County	31 1332MST	?	?	0	0	?	?	Tornado (FO) Air Force personnel reported a tornado west of Hawk Springs. Shortly before, marble sized hail and heavy rain were reported at Hawk Springs.
Albin, Laramie County	31 1736MST		0	0	5	?	Thunderstorms	Five inches of rain and marble sized hail fell at Albin. Basements were flooded and there was extensive flooding of low-lying areas.

49 ALASKA, Northern ——— NO REPORT RECEIVED

49 ALASKA, Southern ——— NO REPORT RECEIVED

49 ALASKA, Southeastern ——— NONE REPORTED

## 50 HAWAII

All Islands	1		0	2	4	0	High Surf	A swell originating from a southern hemisphere winter storm far south of Tahiti caused a 10 foot surf along the south shores of all islands. Some minor damage occurred to the pavements of exposed roadways during the afternoon high tide. Also, some minor injuries were sustained by several surfers.
Oahu	17 1500-1700HST		0	0	4	0	Flash Flooding	Intense afternoon thundershowers in the Honolulu area caused some urban flooding and minor flash flooding.
Hawaii	21 1540HST		0	0	0	0	Waterspout	A waterspout was reported about 1 mile northeast of Hilo.
Hawaii	25 1300-1400HST		0	0	4	0	High Surf	High surf generated by Hurricane Ignacio did minor damage to roadways and structures along the Puna and Kau shoreline. The surf was 10 to 15 feet high at Kalapana and Kapoho.

## 51 PUERTO RICO

Ponce	23 Afternoon		1	1	0	0	Lightning	A 13 year old boy was killed when he was struck by lightning on California Street in Barrio Clausell. An 11 year old boy companion was injured with burns on the head from the same discharge.
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52 VIRGIN ISLANDS ——— NONE REPORTED

53 PACIFIC ——— NONE REPORTED



## REFERENCE NOTES

† Storm damage categories are from 1 to 9 as follows:

- 1 Less than \$50
- 2 \$50 to \$500
- 3 \$500 to \$5,000
- 4 \$5,000 to \$50,000
- 5 \$50,000 to \$500,000
- 6 \$500,000 to \$5 Million
- 7 \$5 Million to \$50 Million
- 8 \$50 Million to \$500 Million
- 9 \$500 Million to \$5 Billion

- \* Miles instead of yards
- \*\* Yards instead of miles
- @ Includes heavy sleet storm
- # Freezing drizzle and freezing rain, commonly known as glaze
- ≠ Not received or incomplete
- o/c Under Estimated Damage, Property/Crops, indicates crop damage amount is included in the figure given

### Definition of Fujita Tornado Scale (F scale)

(F0) Gale tornado (40-72 mph): Light damage  
Some damage to chimneys; break branches off trees; push over shallow-rooted trees; damage sign boards.

(F1) Moderate tornado (73-112 mph): Moderate damage  
The lower limit (73 mph) is the beginning of hurricane wind speed; peel surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off the roads.

(F2) Significant tornado (113-157 mph): Considerable damage  
Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light-object missiles generated.

(F3) Severe tornado (158-206 mph): Severe damage  
Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off ground and thrown.

(F4) Devastating tornado (207-260 mph): Devastating damage  
Well-constructed houses leveled; structure with weak foundation blown off some distance; cars thrown and large missiles generated.

(F5) Incredible tornado (261-318 mph): Incredible damage  
Strong frame houses lifted off foundations and carried considerable distance to disintegrate; automobile-sized missiles fly through the air in excess of 100 m; trees debarked; incredible phenomena will occur.

(F6-F12) (319 mph to Mach 1, the speed of sound):  
The maximum wind speeds of tornadoes are not expected to reach the F6 wind speeds.

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(F0+F1) *Weak Tornado*

(F2+F3) *Strong Tornado*

(F4+F5) *Violent Tornado*

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